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Incorporating *International Commerce*

DECEMBER 28, 1970

Commerce Today

Coming Developments in Business and Technology

UNITED STATES DEPARTMENT OF COMMERCE
THE AMERICAN ECONOMY
GNP
BAKER
THE LATEST OFFICIAL ESTIMATE OF THE GNP IS
WHICH IS FOR THE
THIRD QUARTER OF 1970
ECONO-QUIZ
ONE TRILLION DOLLARS

First Trillion Holds Solutions For '70s

FROM THE SECRETARY

Gains In 1970 Lay Groundwork For New Year

The turning of the calendar from the old year to the new is a time for taking stock, a time for an inventory of achievements past and hopes ahead.

For the Department of Commerce, 1970 was a year in which gains were made along many different roads:

The President created the National Oceanic and Atmospheric Administration, his maritime program became law, he assigned Commerce the Office of Telecommunications, and he created the National Industrial Pollution Control Council to work with the Department in organizing business efforts to improve the environment.

Also in 1970:

- Commerce conducted the most accurate Census in history, and scored important success in its efforts to expand American exports.
- The Federal Government as well as the private sector awakened to the needs and hopes of minority businessmen, and MESBICs became a reality as a growing means of financing new minority businesses.
- Congress approved two new Assistant Secretaries of Commerce, for Maritime Affairs and Tourism, and authorized a significant tourism program.
- The Patent Office led the way to modernization of the International Patent Treaty, and EDA utilized its resources more effectively than ever before to the great benefit of all disadvantaged Americans—black, Indian, Mexican-American, white.
- The President participated in our observation of the nation's incredible economic achievement—a One Trillion Dollar economy (see Page 4).
- The National Minerals Commission was launched jointly by Interior and Commerce.
- It was the year of Secretarial trade missions to 11 foreign countries, a two-day conference with the American business press, a first-time full day meeting with the Directors of Economic Development of the 50 states, and the inauguration of *Commerce Today.*

All of this laid the groundwork for the directions we will follow in 1971. On the basis of where we are today, we expect that in the year to come:

- Recommendations on the Metric System (see Page 28) will be submitted to Congress, detailed results of the 1970 Census will be published, and a major national business meeting will be held.
- The pursuit of freer, fair and reciprocal trade practices will be accelerated among the trading nations of the world. Tariff preferences will be sought for the developing countries, increased trade with Eastern Europe is expected, and we will continue to seek an effective lowering of non-tariff barriers throughout the world.
- Commerce will participate in new efforts to achieve more orderly, productive national growth. New programs are expected to be initiated to aid the nation's Indians, and to press for much needed minority enterprise legislation.
- The Bureau of Standards, in cooperation with the States, is expected to help remove barriers to technological innovation and to increase building and construction efficiency.
- The Department looks forward to new achievements in the sound management and conservation of marine resources, to possibly historic developments in weather modification, and to voluntary reductions in industrial pollution.

And there will be much more. Our energies are at work to serve the American enterprise system better, economically and technologically.

It is a remarkable time in which to look ahead.

Maurice H. Stans

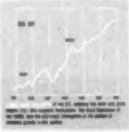
Commerce Today

Incorporating *International Commerce*

Vol. I, No. 6, December 28, 1970

4 Trillion Dollar Economy Holds Solution For The 70s

President Nixon unveils Commerce's Gross National Product clock marking $1 trillion economy which is seen as a strengthener for the coming decade.



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COVER—*President Nixon marks first trillion dollar annual national production figure in ceremonies at the Commerce Department introducing the Department's GNP clock. The production rate is expected to reach the second trillion level in less than two decades.*

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Housing Surges, Heads Toward 20-Year Peak

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

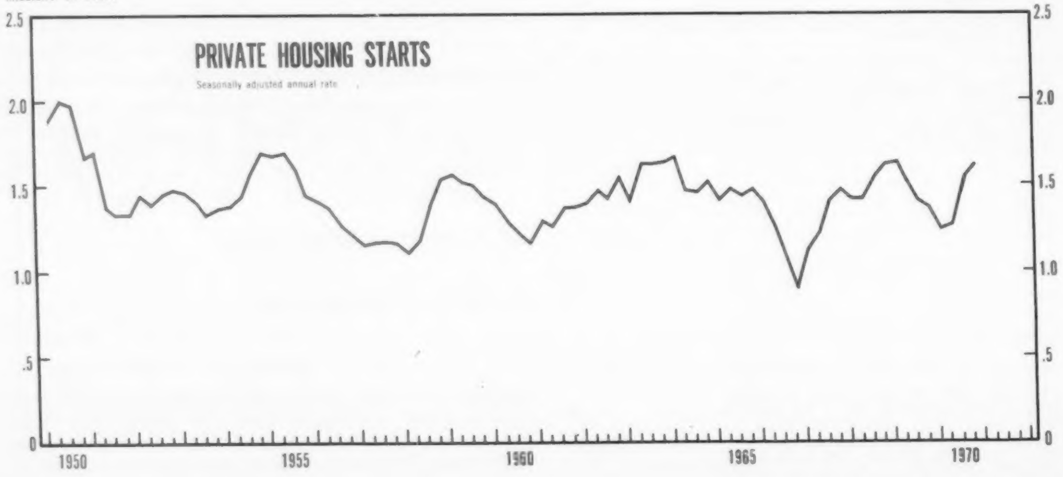
The residential construction industry has bounced back strongly in 1970. Mortgage money, the lifeblood of the industry, is once again flowing through the pipelines of the thrift institutions in massive amounts. This improvement is reflected in the downtrend in mortgage rates during 1970. As a result of these greatly improved financial conditions and pent-up demand, housing appears to be on the threshold of its biggest year since 1950.

Housing starts climbed to a seasonally adjusted annual rate of almost 1.7 million in November, continuing the sharp improvement under way since the first quarter when the rate averaged only 1.25 million.

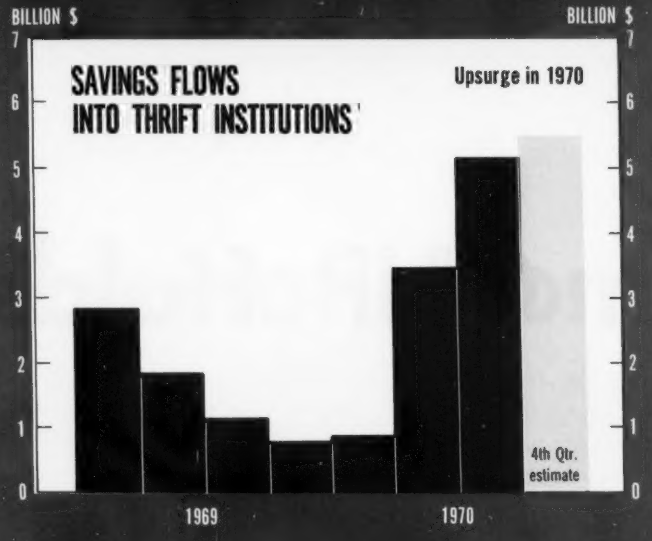
As the chart below shows, housing is tracing out its fifth major cycle in the last two decades. In the latest cycle, the volume of starts dropped from a rate of 1.6 million units in late 1968 to 1.25 million early in 1970. The decline, however, probably would have taken starts to the 900,000 level recorded in the housing downturn of 1966 if the Federal Home Loan Bank Board and the Federal National Mortgage Association had not poured large sums of money into the mortgage market. The upswing in 1970 has already brought starts back almost to their 1968 peak, and this expansion should continue in the year ahead.

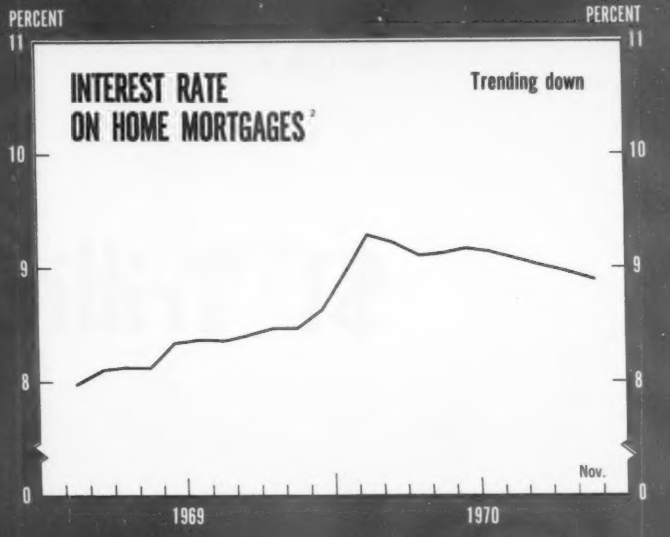
Homebuilding is always at the end of the line for credit during periods of tight money conditions such as those in 1966 and 1969. Monetary policy probably will be more even-handed in the future, however, and this should help the housing industry hold to a steadier course.

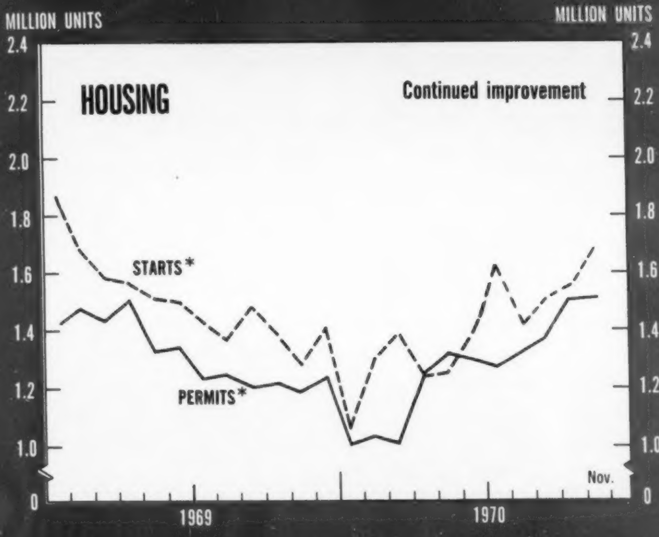
Meanwhile, most economic data for October and November have been adversely influenced by the auto strike. This is true of both industrial production and retail sales, which show declines. Although the merchandise trade surplus has narrowed since mid-year, the annual total will be much improved over 1969—$3 billion compared with $1.3 billion.

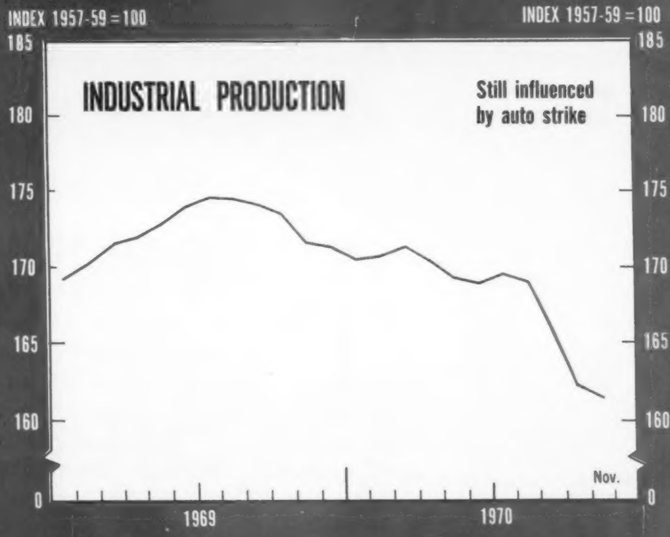


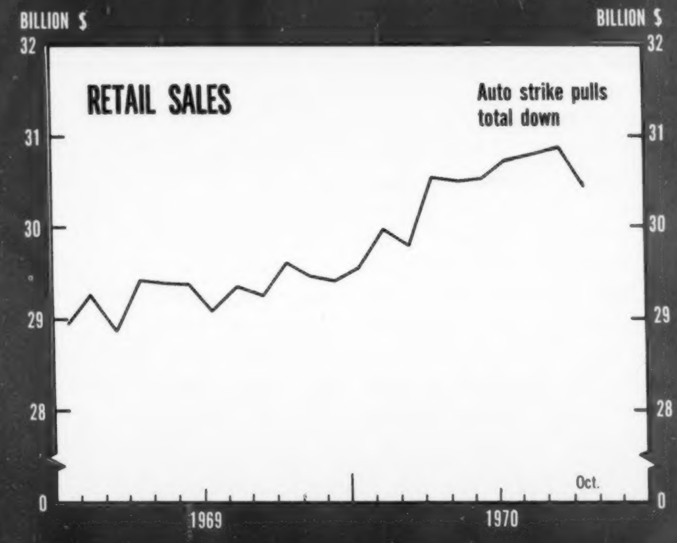
Latest Indicators

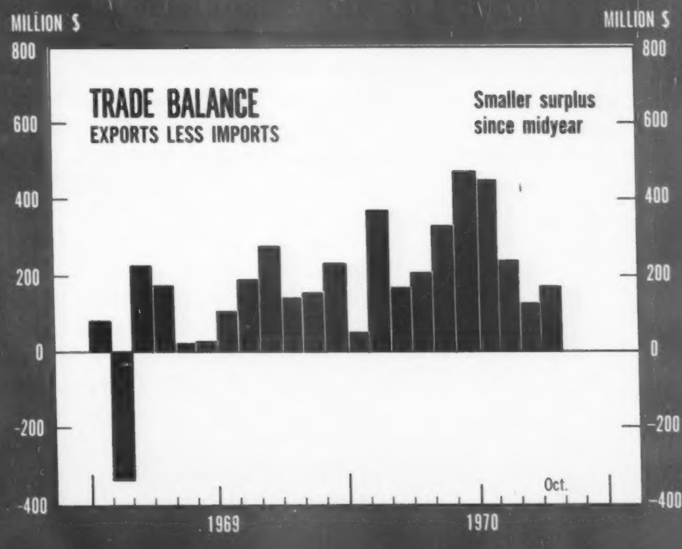












All data seasonally adjusted, except interest rates.

* Annual Rates

[1] Mutual savings banks and savings and loan associations (net inflows).

[2] FHA insured secondary market yields.

Commerce Today
December 28, 1970
Vol. I, No. 6

$1 Trillion GNP Holds

President Emphasizes Economic Strength As Means To Meet Broad National Goals

The U.S. economy is now ticking away on its second trillion.

What the United States can do for its people and for the people of the world "depends on this enormously productive American economy," President Nixon said in a ceremony Dec. 15 at the Department of Commerce.

The President began speaking at approximately the moment the economy was estimated to have reached an annual rate of production of $1,000,000,000,000—at noon Dec. 15. Secretary Stans introduced the President. Several members of the cabinet and a number of other high Government officials also participated.

"With the next trillion dollars will come solutions to problems of the environment, health, education and other social concerns," Secretary Stans asserted at the ceremony, "The economic growth of the country contributes the material things that make it possible to meet our social goals."

It took nearly two centuries for this country to attain an annual rate of production of $1 trillion—but the rate is expected to reach the $2 trillion level in less than two decades.

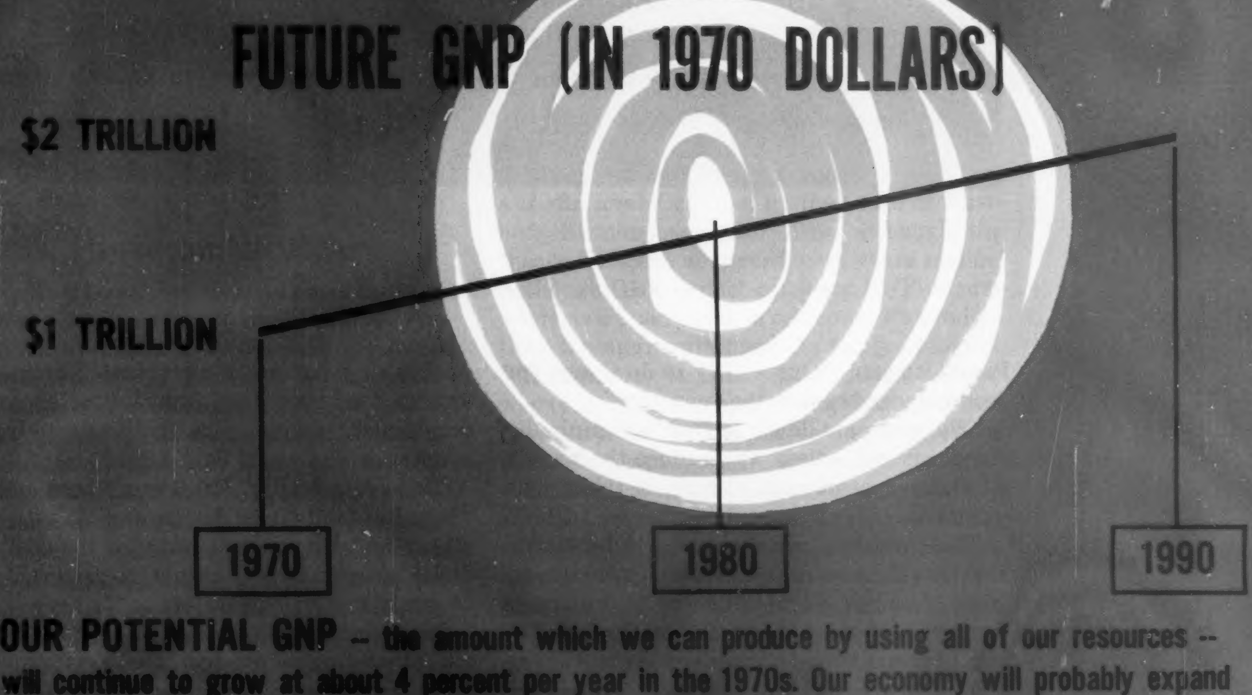
President Nixon urged Americans to be thankful that "we can now turn more to the quality of life." He indicated he will offer a new program in the area of health in the immediate future.

"Our capacity to be a good country depends upon our capacity to produce," the

GNP

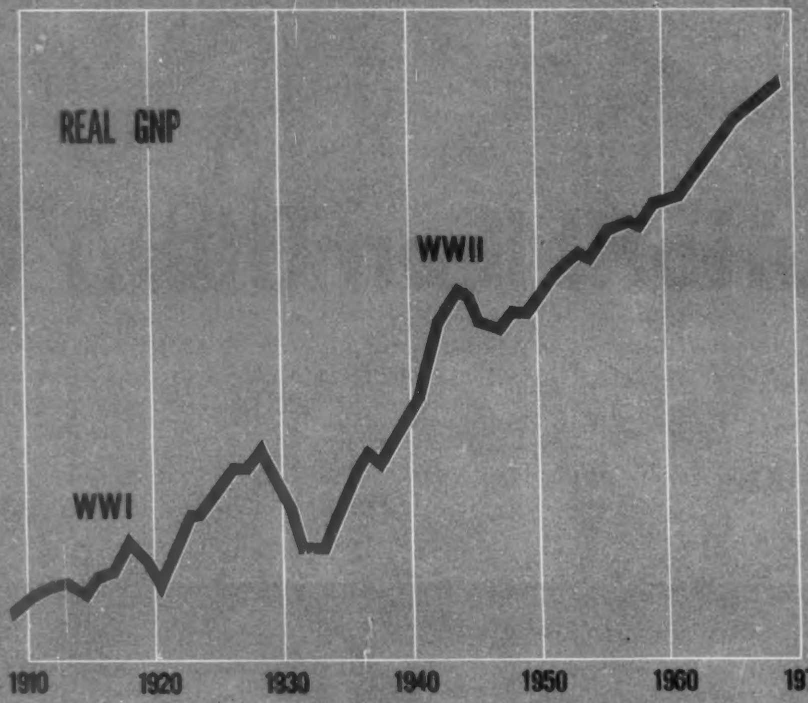
GNP is the volume of goods and services produced by the American work force and its productive facilities. GNP includes goods such as automobiles, TV sets, furniture and cosmetics and services such as education, medical care, haircuts, football games and trips on jet liners. By registering the volume of production, GNP also shows how fast the economy is moving.

Solutions For The '70s



OUR POTENTIAL GNP -- the amount which we can produce by using all of our resources -- will continue to grow at about 4 percent per year in the 1970s. Our economy will probably expand at this rate, and real GNP (in 1970 prices) will grow from nearly $1 trillion in 1970 to almost $1.5 trillion in 1980.

A real growth rate of 4 percent means that we could double our output of goods and services every 18 years.



LONG RUN GROWTH of the U.S. economy has been very good, despite short-term business fluctuations. The Great Depression of the 1930s was the only major interruption of the pattern of economic growth in this century.

President said, "Our ability to do things for people depends upon the economy."

"We can pass laws setting up minimum standards but unless we produce the wealth all those dreams won't mean a thing," he continued.

The President noted that the Administration's welfare reform legislation would guarantee families with children "a minimum income higher than three-fourths of the people now living in the world will ever know."

No president could have advocated such a proposal five years ago, he added. It is possible today, he pointed out, because of a trillion-dollar economy.

President Nixon said that, rather than apologizing for a strong private enterprise system, "we should be thankful for an economy which enables us to do things no other country in the world can equal."

"It has its faults," President Nixon added, "But its faults can be corrected with its strengths." He said five-sixths of the trillion-dollar gross national output is produced by people in a private capacity.

Secretary Stans commented that the margin of our economy over the next nearest nation measures the superiority of the American system.

Gross National Product can be used to gauge the economy's rate of production just as a speedometer is used to measure the speed of a car. A trillion-dollar GNP rate means that this nation can turn out a trillion dollars worth of goods and services in a year. GNP will be well above the trillion-dollar level in 1971.

The attainment of a $2 trillion economy in 18 years is not an unreasonable goal. The present level is double the GNP of 20 years ago, and more than three times the figure reported for 1940—even after allowing for price changes.

One factor in the vigorous and sustained growth of the U.S. economy over many years is the steady increase in population, and the wealth of natural resources. But the United States has outstripped all other nations, including some that have larger populations, larger land areas, and more abundant natural resources. The most important element in U.S. economic growth is productivity, or output per manhour.

Through the use of more and better machines, new processes, better education and training, the output of the American worker has increased steadily over the years. Over the long-term, productivity of American workers has grown about 3 percent per year, and the rate has been much higher in farming.

An electronic display was used in the ceremony to symbolize the trillion-dollar milestone. This GNP clock continuously shows the approximate annual rate of GNP on a large dial.

The approximate moment at which the GNP attained the trillion-dollar level was calculated by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs. He emphasized that the Gross National Product (GNP) figure shown on the clock is an estimate of the Nation's current rate of production—an estimate of how fast the economy is producing goods and services at the present time. GNP is, in effect, a speedometer for the economy. A speedometer in a car measures its rate of speed in miles per hour. Similarly, the GNP measures the rate of economic production in dollars per year. On December 15—with General Motors returned to full production after the strike—the economy achieved the rate of production that if continued for a year, would mean a GNP of one trillion dollars.

The GNP Clock, which will be placed on permanent display in the lobby of the Department of Commerce building, has been set so that the huge number increases at the rate of 6 percent a year—the approximate rate of U.S. economic expansion over the past two decades.

The machine also serves as an economic educational device. By turning a dial and pressing a button, visitors to the lobby can obtain answers, many of them illustrated, on various facets of the U.S. economy: production, income, employment, inflation, long-term growth, international trade, and balance of payments.

Gross National Product was developed into a useful analytical tool by the Office of Business Economics in the 1930s although the theory had been advanced some years earlier. Although OBE cannot calculate GNP as precisely as a business firm can count its production, the aggregate figure is fairly accurate. Furthermore, it can be calculated in two ways: by counting everything that goes into production as well as the value of the goods and services produced.

The figure includes only those goods and services which go to the ultimate purchaser, and which move in regular commercial channels. For example, a component for a new television set is not counted because it will be included in the price of the set. If a homeowner pays a contractor to paint his house, the amount paid for that service goes into GNP, but if he buys $75 worth of paint and does the job himself, only the $75 worth of paint will be included in GNP—the homeowner's labor is not counted.

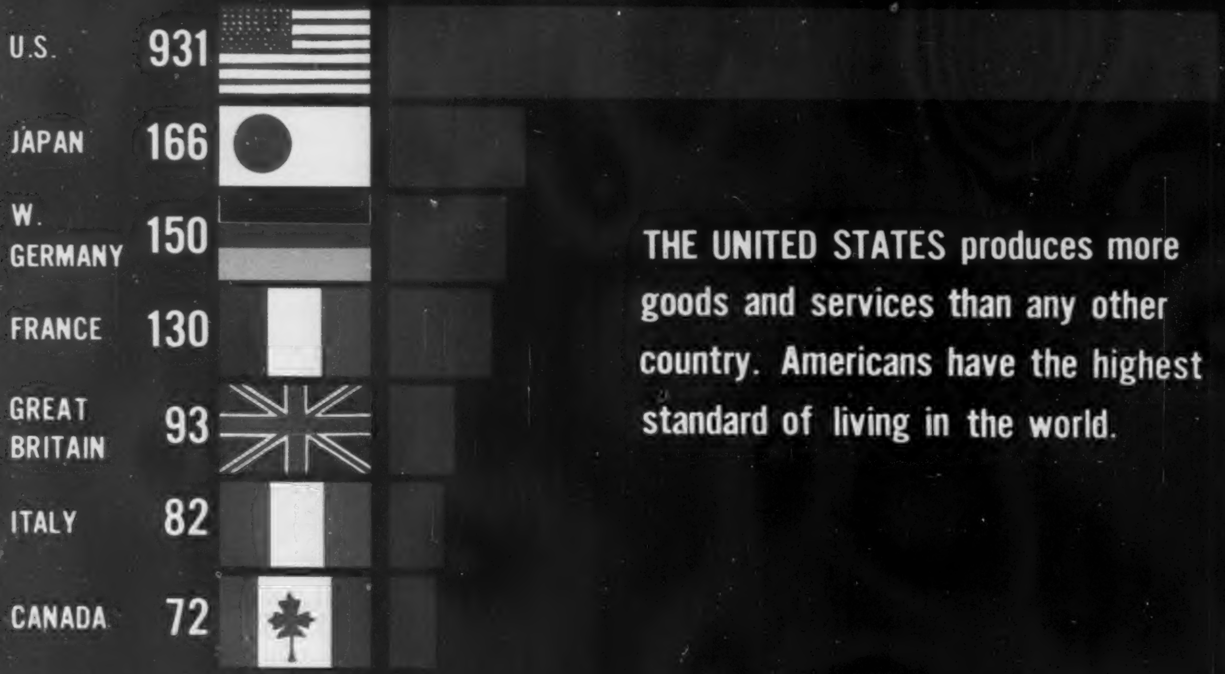
Thus, the figure for annual production

Government Role

Most goods and services move through the private sector of the economy. The quantity and kinds of goods produced are determined primarily by consumer tastes. The Government's major role is to provide the background economic conditions in which a free-market system operates. The principal goals of Government economic policy are to stimulate growth, encourage high employment, and maintain stable prices. During the past 20 years consumer prices have increased but wages have incresed more, because of productivity gains. These productivity gains are the source of higher living standards.

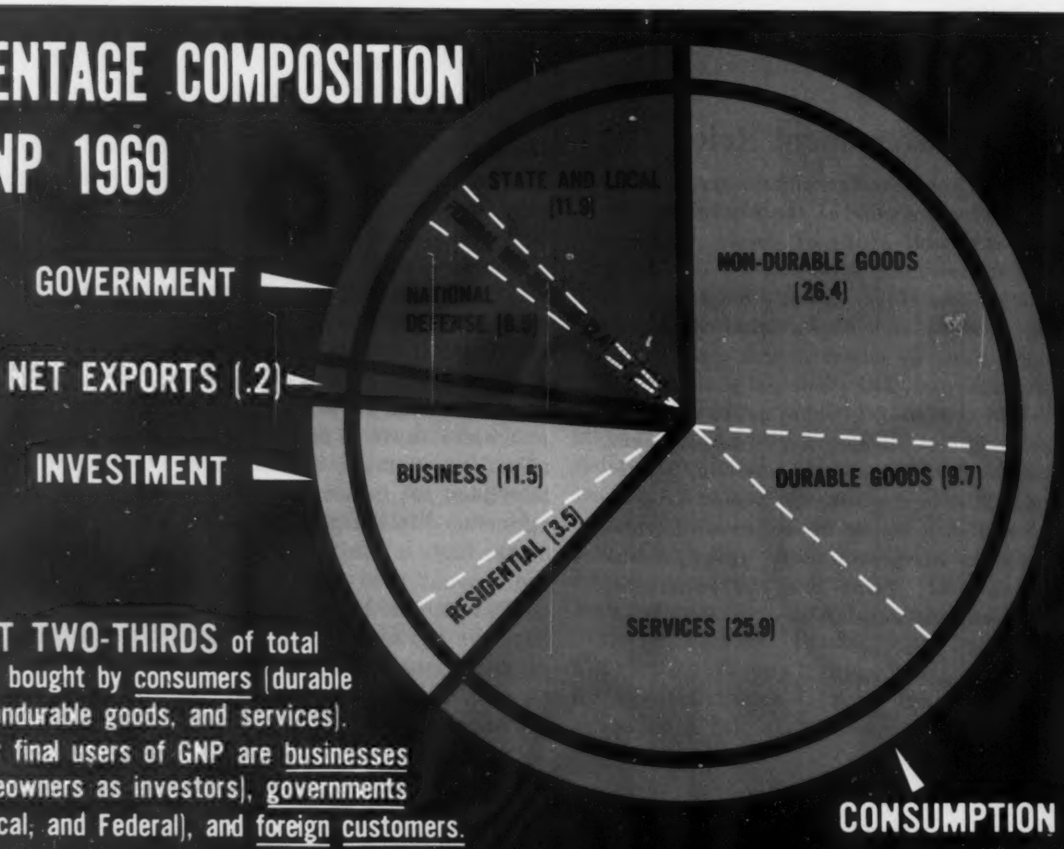
GNP Comparison – U.S. and Other Leading Countries – 1969

(In Billions of Dollars)



THE UNITED STATES produces more goods and services than any other country. Americans have the highest standard of living in the world.

PERCENTAGE COMPOSITION OF GNP 1969



ALMOST TWO-THIRDS of total output is bought by consumers (durable goods, nondurable goods, and services). The other final users of GNP are businesses (and homeowners as investors), governments (State, local, and Federal), and foreign customers.

would be even larger if the estimated value of all the duties that housewives, homeowners and do-it-yourself mechanics perform were included. On the other hand, GNP makes no allowances for some hidden costs such as pollution and resource depletion because there is no way to estimate them.

Pollution has increased as GNP increased; this is not surprising because an increase in any human activity is likely to cause more pollution. A picnic and a production process both can destroy the landscape. If environmental standards are strictly enforced, the output can be increased without an increase in pollution. In addition, a larger GNP will give us more resources to deal with environmental problems.

The word "gross" is used only in an accounting sense: Gross National Product does not take into account the depreciation in machines and structures which occurs in the production process. Net national product also can be calculated, but economists make more frequent use of GNP because they are more interested in total production even if part of that production is used to replace worn-out facilities.

Since our GNP has been increasing faster than population, we have more goods and services per capita—in other words, a higher standard of living. The per capita GNP has been increasing steadily for 30 years and it now stands at $4,800; it is believed to be at least one-fourth higher than that of any other nation, and it is more than double the level in most areas of the world.

With about six percent of the world's population and seven percent of the land area, the United States accounts for about half of the world's production of automobiles and telephones, one-third the electric power, and about one-quarter of the world's steel and petroleum. The Soviet Union probably is second to the United States in annual production; while no accurate estimate is possible, there is no doubt that Russia is far behind this country even though it has a larger population.

The combined output of Japan, West Germany, France, the United Kingdom, Italy, and Canada fall short of the United States' trillion-dollar level.

Consumers purchase about two-thirds of GNP and almost all the remaining one-third is accounted for by business investment and Government expenditures.

GNP is often useful in putting other figures in a more meaningful perspective. For example, spending for national defense in 1969 was $78.8 billion, or 70 percent higher than the $46 billion spent in 1959. Yet, our total production increased even more, with the result that the proportion of GNP devoted to national defense decreased from 9.5 percent in 1959 to 8.5 percent in 1969.

Such percentage comparisons accurately reflect changes in emphasis placed on any given sector by the people of the United States. It is people, as consumers and voters, who determine what goods and services are produced. Businesses must be responsive to the desires of consumers, and Federal, state and local governments must respect the wishes of voters.

Dollar comparisons of current GNP with a prior year are much more useful if allowance is made for changes in the price level. "Real GNP" is the term used to express production in the value of dollars of some prior year. Thus, GNP for 1970 is reported in two ways: in terms of 1970 dollars and in terms of dollars for the benchmark year, 1958. By eliminating the inflation factor, economists can more accurately gauge economic progress.

The real rate of growth has averaged about 4 percent per year since World War II; at this speed, the real GNP will double in less than two decades.

The United States has a good record of price stability over the years in comparison with most other nations. Prices have increased only about 2 percent a year since the end of the Korean War.

This record of price stability, the size of our economy, and our record of growth are three reasons why the dollar is the most widely used currency in international transactions.

How has the United States been able to achieve a trillion-dollar economy? One answer, as stated earlier, is increased output per man-hour, or productivity, which in turn stems from more and better productive facilities and more skillful workers.

It should be noted that more efficient facilities—better machines, structures, and productive processes—must be conceived, developed and put into operation by men. Thus, our store of "human capital" is our greatest asset.

—Office of Economic Affairs

Regional Trade Picture Seen As Market Guide

In All Major World Areas, U.S. Manufactured Exports Rise, But Competition Is Increasing

Trends in foreign markets for manufactured products are pinpointed by region for U.S. exporters in the following report.

Among salient world trade developments in manufactures during the sixties—developments that may help exporters in planning their market strategy—the latest survey cites the following:

- Competition from foreign suppliers is intensifying in key U.S. markets, especially the European Economic Community and South and East Asia.
- Strong advances in U.S. shipments to Canada further dramatize that country's position as the United States' largest foreign market. The rise was steepest in automotive products moving duty-free under the U.S.-Canadian agreement.
- Developed nations are generating the principal stimulus to U.S. as well as world exports of manufactures.
- In these markets, prospects for strengthening the nation's export position look best for products in which U.S. firms possess a significant technological lead.
- Developing nations, generally enjoying improved payments positions after a long period of weakness, provide added opportunities for significant U.S. sales gains.
- Japan and Italy continue to make substantial gains in the world market for manufactures but Germany remains by far our major competitor.

These and other significant patterns emerge from the Commerce Department's in-depth study of the behavior of U.S. exports to 11 regional markets from 1962-64 through 1968, the latest period for which detailed data are available.

U.S. exports of manufactures advanced sharply to most regions in recent years but the resulting gains failed to prevent a decline in our share of the world market. Expanding by three-fifths from their 1962-64 average value, U.S. sales reached $23.6 billion in 1968 to account for 23.3 percent of the global trade in manufactures, a slightly smaller proportion than at the outset of the period. This weakening reflected primarily the marked drop in 1965 which depressed the U.S. standing to such an extent that im-

This is the second of two articles analyzing U.S. trade trends in the 1960s, prepared by the International Trade Analysis Division of the Commerce Department's Bureau of International Commerce.

provements in subsequent years, although substantial, failed to restore the earlier loss.

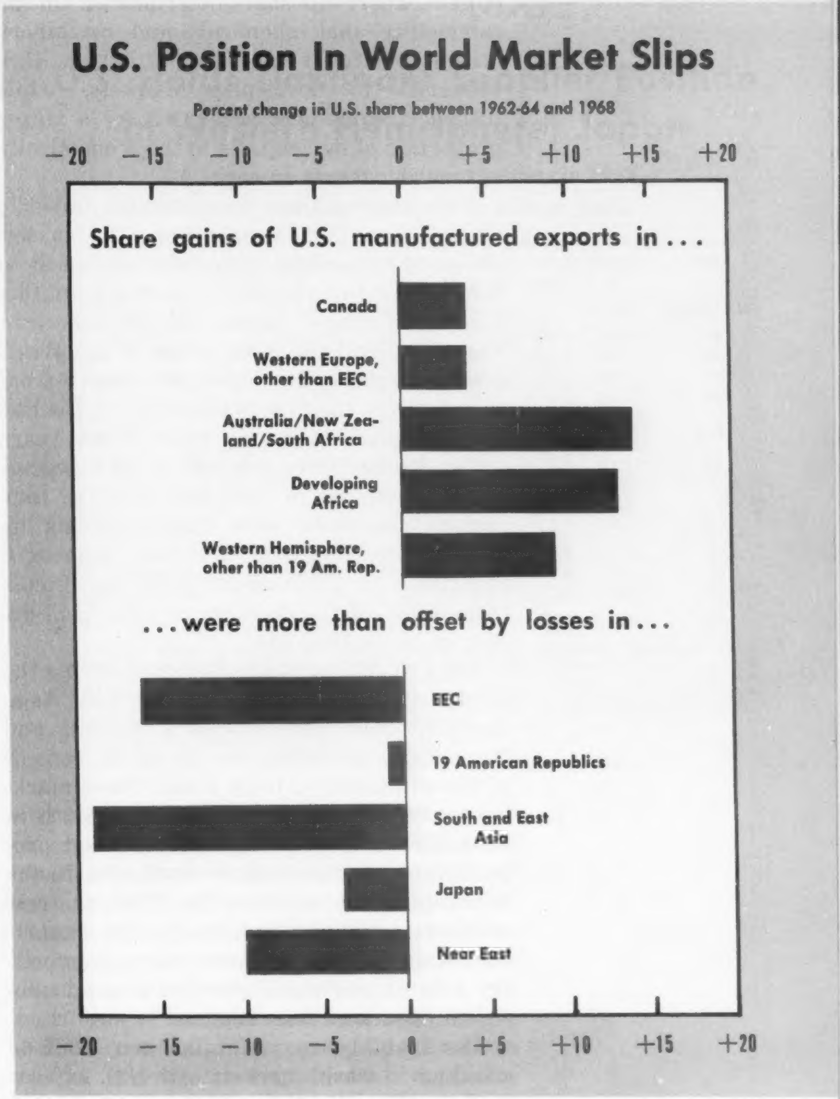
In 1969, the U.S. position resumed its decline, falling to 22.2 percent as our relative performance deteriorated in virtually every major area of the world. The trend continued into 1970 with the U.S. share sinking to 21.9 percent for the first six months of the year.

Canada overshadowed all other regions in size and growth of U.S. sales. It also represented the outlet in which American exporters held their largest share. Developing Africa netted our suppliers the smallest increase in value of deliveries but was among the areas where our share grew the fastest. On the highly competitive West European market, U.S. manufacturers lost ground in the EEC but improved their position in the non-EEC countries.

Among our major competitors, Japan and Italy recorded the largest share gains in world markets outside the United States. The improvement in the overall positions of both countries was attributable to a stronger performance in each of the five principal groups of manufactures as well as in virtually every regional market. Despite widespread but moderate share declines, Germany enhanced its standing marginally. On the other hand, the French position weakened slightly because of setbacks in some key outlets, while the United Kingdom's share deteriorated sharply, with losses extending to every major commodity group and to many important markets.

Surge in world exports

Rapid and widespread economic growth led to a sharp expansion in the world market for manufactures in recent years. The combined exports of the 14 major industrial nations—excluding shipments to the United States—rose from a 1962-64 average value of $62 billion to a record $101 billion in 1968. The increase was particularly sizable during the closing year as the recovery from the 1967 economic slowdown in Western Europe and higher export earnings in most developing countries bolstered world demand. The 13 percent rise in exports of manufactures in 1968 consisted almost entirely of real gains since price increases, where they did occur, were modest.


U.S. Position In World Market Slips

Percent change in U.S. share between 1962-64 and 1968

Developed countries provided by far the greatest thrust to the growth in demand. Expanding by $28 billion, shipments to these regions reached $71 billion in 1968 to account for well over two-thirds of the total outflow of manufactures from the 14 leading suppliers. The increase in sales to the developing markets as a group was far below the gain reported in shipments to the economically advanced countries, thus widening the gap in the relative importance of the two areas as outlets for free-world manufactured exports. Despite their exceptionally rapid growth, East European markets continued to account for only a small fraction of this trade.

The U.S. sales performance differed markedly between the developed and the developing regions, as did the commodity composition of our export flow. In the first instance, U.S. shipments to developed markets, where our position improved, advanced nearly twice as fast as those to developing outlets, where our share deteriorated. On the commodity side, chemicals and machinery became relatively more important in U.S. deliveries to developing markets, while transport equipment accounted for a larger proportion of our exports to the economically advanced nations.

Nevertheless, these developments failed to alter U.S. regional marketing patterns significantly. American exporters continued to dominate the market for imported manufactures in Canada, Japan, the 19 American Republics, and the other areas of the Western Hemisphere. The U.S. share ranged from four-fifths in the first to two-fifths in the last of these markets during most of the years under review. Over one-half of U.S. manufactured exports in 1968 flowed to the four regions combined, with Canada taking by far the largest segment. Moreover, the rise in shipments to these areas made up almost three-fifths of the increase in total U.S. deliveries since 1962-64.

The United States also remained among the prominent suppliers to South and East Asia, Australia-New Zealand-South Africa, and Near East, providing for 20 to 25 percent of the shipments to these areas. These markets together accounted for only one-sixth of 1968 U.S. sales and for a slightly lower proportion of our total export expansion. In the remaining three markets, the EEC, the rest of Western Europe, and Africa, U.S. exporters, on the other hand, were held to a secondary role as our share hovered around one-eighth in each of these regions.

The inability to maintain their 1962-64 standing in world markets cost U.S. exporters an estimated $650 million in sales during 1968, or nearly 3 percent of actual deliveries. The loss in potential exports centered mainly in the EEC but reached significant proportions also in South and East Asia. Substantial share gains in Canada partially offset these losses.

Best gains in Canada

Canada remained the fastest-growing foreign market for U.S. manufactures, as well as the largest. Our shipments doubled to $6.6 billion in 1968 thus raising the U.S. share to 80.6 percent. This improvement stemmed primarily from surging deliveries of automotive products shipped duty-free under the provisions of the 1965 U.S.-Canadian agreement, and from strong gains in shipments of aircraft. In addition, our share rose sharply in aluminum and in pumps and centrifuges, as sales of both groups of products increased more than one and one-half times. Our position edged up even further in heating and cooling equipment where U.S. exporters already supplied virtually the entire market. In contrast, despite solid expansions of deliveries, the U.S. standing deteriorated in plastic materials, electric power machinery and switchgear, and mechanical handling equipment.

In the American Republics, our third largest outlet in the world, U.S. exporters failed by a narrow margin to maintain their share of the market. Although accounting for half of total exports to the area, U.S. deliveries advanced by only two-fifths to $3.7 billion in 1968. The modesty of this rise was largely attributable to the sluggish economic growth of the American Republics during most of the period under review.

Internal combustion engines, other than for aircraft, and chemical fertilizers were among the best selling U.S. products in the American Republics. A substantial boost in sales brought to over three-fifths the U.S. portion of the import market for both goods. Sizable to moderate share gains were recorded in electric power machinery and switchgear, copper, non-road tractors, heating and cooling equipment, and pumps and centrifuges. On the other hand, our position edged upward only marginally in the aircraft market to reach 69 percent, although U.S. exports, valued at $220 million, more than tripled through 1968. Sharp losses in both shares and sales of trucks, medical and pharmaceutical products, and yarn and thread of manmade fibers, however, partially offset these gains.

Approaching $1.2 billion in 1968, U.S. manufactured exports to Japan rose by almost 70 percent. Rapid economic growth, however, swelled import demand even more sharply and, consequently, our market share slipped to 53.5 percent. Electron tubes, transistors, and other semiconductors were by far our most buoyant export items, due mostly to booming deliveries to affiliates. The U.S. share rose sharply also in printed matter and heating and cooling equipment to over 77 percent. Although climbing less rapidly, higher exports of pumps and centrifuges resulted in a 10-point increase in our market share to account for 70 percent of the total. These gains were insufficient, however, to prevent weakening in our overall standing due to declining deliveries of metalworking machinery and telecommunications apparatus except TV and radio receivers and from limited growth in exports of aircraft engines and electronic computers and statistical machines.

U.S. Holds Dominant Supplier Position In Western Hemisphere, Japan

A summary of manufactured exports in 1968

Markets	World [1] Value	United States Value	United States Increase over 1962-64	United States Percent of total	United States Share	United States Share Index
	$ million	$ million	Percent		Percent	1962-64=100
Total [2]	101,419	23,636	60	100.0	23.3	98
Canada	8,227	6,632	107	28.1	80.6	104
19 American Republics	7,375	3,686	39	15.6	50.0	99
Japan	2,190	1,171	68	5.0	53.5	96
Other Western Hemisphere	1,139	459	74	1.9	40.3	109
South and East Asia	8,146	1,863	23	7.9	22.9	81
Australia/New Zealand/ S. Africa	4,973	1,253	66	5.3	25.2	114
Near East	3,566	687	68	2.9	19.3	89
EEC	31,727	3,743	43	15.8	11.8	84
Other Western Europe	23,748	2,983	64	12.6	12.6	103
Developing Africa	4,518	541	44	2.3	12.0	113
Eastern Europe	3,573	72	259	0.3	2.0	183

[1] World exports are defined as those of Austria, Belgium-Luxembourg, Canada, Denmark France, Federal Republic of Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland United Kingdom, and United States to markets outside the United States. Manufactured export cover chemicals, machinery, transport equipment, and other manufactures (principally metals textiles, and various nondurable consumer goods) and exclude processed food, fats and oils mineral fuel products, firearms of war, and ammunition.

[2] Includes other areas.

The smallest but the most rapidly expanding of developing outlets for U.S. manufactures was that area of the Western Hemisphere outside of the 19 American Republics and Canada—consisting mainly of the Guianas and most of the Caribbean Islands—where our sales advanced by nearly three-fourths to $459 million. Over the same period, our share rose to over two-fifths of that market, mainly from solid gains in clothing, organic chemicals, and pumps and centrifuges.

Position weaker in Asia

Despite significant industrialization, the demand for foreign manufactures in South and East Asia was dampened by slow expansion in the economies of some countries and a curbing of imports to protect external payments positions in others. As a consequence, this region was the least buoyant market for U.S. manufacturers as well as for most other suppliers. Our exports rose by only one-fourth to $1.9 billion, advancing at less than half the rate recorded for our competitors combined. Consequently, the U.S. share of the South and East Asia import market dropped by more than 5 points, our sharpest loss in any area, to slightly below 23 percent.

Deep cuts marked the U.S. performance in all commodity groups except chemicals, where our position improved on the strength of surging shipments of AID-financed manufactured fertilizers and considerably higher sales of organic chemicals. The U.S. share improved dramatically also in electron tubes, transistors, and other semiconductors and also in other office machines, mostly electronic computer parts for assembly. On the other hand, reduced exports weakened our position in most textile and steel products, and construction and mining machinery.

U.S. manufacturers significantly increased their portion of the exports flowing to Australia New Zealand South Africa, a grouping that represents developed countries producing chiefly industrial materials and agricultural products. Our combined sales to the three countries advanced by two-thirds to nearly $1.3 billion, stimulated mainly by strong demand for U.S. aircraft. Also contributing to the increase were expanded sales of telecommunications equipment except TV and radio receivers, pumps and centrifuges, internal combustion engines other than for aircraft, electric power machinery and switchgear, and scientific and controlling instruments. Marked share gains for each of these goods strengthened our overall position by more than three points to 25 percent. Declining shipments of passenger cars and metalworking machinery, however, limited the improvement in our overall standing.

With generally increased oil revenues making possible the implementation of economic development plans, the Near East emerged as one of the most rapidly expanding markets for U.S. manufactured goods. Our deliveries to this area rose by 68 percent to nearly $700 million. Nevertheless, the combined exports of competitors grew substantially faster, causing our market share to decline to less than one-fifth.

The Near East was the only region where U.S. exporters failed to improve their standing in any of the broad commodity groups. Our firms performed best in electric machinery, where they retained 21 percent of the market on the strength of solid export gains in electric measuring and controlling instruments, electric power machinery and switchgear, and telecommunications equipment excluding radio and TV receivers. The U.S. standing also improved notably in internal combustion engines other than for aircraft. Sharpest share losses were experienced in transport equipment, where deterioration of our position in trucks and road tractors and in motor vehicle parts more than countered the improvement in aircraft. Despite sizable increases in deliveries, the United States lost share in heating and cooling equipment, mechanical handling equipment, and pumps and centrifuges.

U.S. share down in EEC

The United States accounts for only a moderate portion of the import market in the EEC, the other countries of Western Europe, and developing Africa. While this last region remained a small market, Western Europe, as a whole, absorbed well over half of the world's manufactured exports in 1968 as well as more than one-fourth of total U.S. sales. Global shipments to the area expanded by almost $22 billion, with our manufactures providing a mere one-tenth of this increase.

In the EEC, U.S. exports of manufactures advanced by 43 percent to $3.7 billion, making the region the slowest-growing U.S. industrial outlet. The Six, nevertheless, became our second largest market after Canada. Shipments from all sources, including intra-EEC trade, topped $31.7 billion, rising by 70 percent, thus forcing our share downward to 12 percent.

Despite the lowering of trade barriers among EEC members, U.S. manufacturers strengthened their position in a variety of products. As deliveries of aircraft more than doubled to $475 million, our share jumped by 25 points to 66 percent of the market. Sales of kraft paper and paperboard and photographic supplies more than tripled meanwhile, lifting our standing significantly. Lower but, nevertheless, substantial gains in deliveries of pumps and centrifuges, electric power machinery and switchgear, and electron tubes, transistors, and other semiconductors led to a moderate improvement in those commodity markets.

Shipments of electronic computers and statistical machines advanced substantially but the U.S. share merely held steady. Our position in computers alone trended downward during the period, as shipments from U.S.-owned subsidiaries in the Community climbed sharply. Sales of metalworking machinery declined, reducing our share by one-half, while smaller deliveries of telecommunications equipment other than radio and TV receivers, steel plates and sheets, yarn and thread of manmade fibers, and construction and mining machinery also weakened our standing.

Most of the competition on the EEC market for manufactures originated within the Community itself. U.S. exporters easily retained a one-third portion of the products flowing to EEC from non-member countries.

U.S. manufacturers supplied a larger segment of the West European market outside the EEC as sales advanced by 64 percent to $3 billion in 1968. Aircraft, with an exceptionally steep increase in deliveries, provided the single largest boost to our overall position. Considerable share gains were also realized in electron tubes, transistors, and other semiconductors, scientific and controlling instruments, electronic computers and statistical machines, internal combustion engines other than for aircraft, and pumps and centrifuges. The U.S. position improved also in the market for telecommunications apparatus other than radio and TV receivers and for inorganic chemicals.

Most of our other leading exports to Western Europe outside the EEC increased but failed to expand as rapidly as those of our competitors. Although U.S. sales of aircraft engines, office machinery other than computers and statistical machines, and kraft paper and paperboard all grew substantially, our standing as a supplier weakened. Further limiting the overall expansion in the U.S. share of the non-EEC West European market was the sluggishness in shipments of plastic materials, copper, and construction and mining machinery, compounded by lower exports of steel plates and sheets and metalworking machinery.

The relative standing of the United States strengthened moderately in the market for manufactures in developing Africa, as U.S. exports soared in 1968 following a long period of stagnation. Despite the increase, Africa remained our second smallest regional outlet. The expansion in our share to 12 percent of the $4.5 billion import market stemmed from gains in nonelectric machinery, chemicals, and miscellaneous manufactures. U.S. exports accounted for a larger proportion of the rapidly growing requirements for inorganic chemicals, steel pipes and fittings, pumps and centrifuges, aircraft, and mechanical handling equipment. U.S. deliveries of construction and mining machinery and heating and cooling equipment also climbed sharply.

—Bureau of International Commerce

Cryoelectronics—A Key To New Electric Power

Industry, Transport, Medicine Also See Supercold Important Tool For The Future

It's a law of human nature if not nature itself that extreme cold usually means a slowdown in activity. Yet scientists have managed to make productive use of unimaginably intense cold in the laboratory to produce startling surges of life and power. This ability to manipulate cold is helping mankind to solve some very pressing problems.

Since 1904, when the St. Louis World's Fair exhibited a device for liquefying hydrogen gas by a novel refrigeration method, the technology of ultra-low temperatures has fascinated scientists and engineers who have found the realm of absolute-zero full of strange, paradoxical goings-on with revolutionary implications for the future. The 1904 device was presented to the then three-year-old National Bureau of Standards after the St. Louis fair closed. NBS researchers have been probing the phenomena of cryogenics with increasing intensity for nearly three-quarters of a century.

Last year a Cryoelectronics Section was established within the NBS Cryogenics Division in Boulder, Colo., coordinating its activities with related work at the Bureau's headquarters near Gaithersburg, Md. Cryoelectronics is a cryogenic specialty which seeks to exploit superconductivity and magnetic behavior associated with ultra-low temperatures.

Americans alert to the increasing threat of massive power failures—such as the blackout on the Eastern seaboard Nov. 9, 1965—look hopefully ahead to a possible solution through installation of superconductive power transmission lines cooled by liquid helium and capable of carrying billions of watts of direct current for hundreds of miles.

This solution may be close at hand. Studies conducted by the General Electric Research and Development Center, Schenectady, N.Y., indicate that electric utilities could realize a savings of several million dollars a year with the development of superconductive generators, transformers and transmission lines, while, at the same time, providing the expanding megalopolis with all the electrical power it needs. Preliminary research has found that flexible, extra-high-voltage cryogenic cables will be able to transmit power in blocks of three to five million kilowatts and larger by the end of the next decade. Final results of the three-year experiments, financed by Edison Electric In-

EXPERIMENTING BELOW ZERO—*Kenneth N. Mathes, left, insulating systems engineer, and Dr. Michael J. Jefferies, cryogenic machinery engineer, both of the General Electric Research and Development Center, examine an experimental apparatus used to test various insulation at high voltages. The tester is used in the GE exploratory cryogenic underground cable project, a study on the potential of superconductors transmitting extremely large amounts of electric power hundreds of miles.*

SUPERCOLD TO EXPAND POWER—*Underground cable—chilled by liquefied gases to temperatures hundreds of degrees Fahrenheit below zero—may help solve the problem of transmitting large blocks of power into expanding cities. Stephen H. Minnich, manager of the General Electric Research and Development Center, explores one possible configuration, as part of a three-year project sponsored by Edison Electric Institute and the Tennessee Valley Authority on the use of cryogenic fluids for underground cable.*

stitute with the assistance of the Tennessee Valley Authority, will be announced in February.

The GE exploratory project, which is an investigation of the technical and economic feasibility of cryogenic underground cable, is part of a multi-million dollar underground power transmission research program of the Electric Research Council. The ERC is composed of representatives from various segments of the electric power industry—including investor-owned companies acting through EEI; Federal, state and local agencies; and cooperatives.

Similarly welcome would be high-speed trains suspended by superconducting magnets above their roadbeds so as to travel smoothly at 200-300 miles per hour. Experimenting with supercold for "super speed," Atomics International (Division of North American Rockwell Corp.) recommends one scheme for high-speed ground transportation which uses superconducting coils on a moving vehicle to induce a repelling current in a U-channel made of aluminum and iron. In this method, only the vehicle, not the track, requires superconductive windings, which reduce cost and cooling power requirements.

Doctors and biomedical research people look to cryoelectronics for highly sensitive magnetometers with which to detect magnetic fields generated in the human brain and heart. Designers of navigation and guidance systems are seeking to develop magnetically-suspended gyroscopes; these would not need friction-plagued rotating bearings, a source of error-causing drift of the plane in which the devices rotate.

Astronomers, working with masers at superconducting temperatures, are equipping themselves to detect signals from distant stars by eliminating thermal static in receivers. In data processing, fast miniature computers are being designed capable of doing prodigious amounts of work with the aid of superconducting off-on switching devices, controlled by alternately applying and withdrawing a magnetic field. Both Westinghouse and General Electric have done extensive research on developing the "computer-in-a-shoebox" from superconductive technology.

Although the cold-temperature liquefaction of gases goes back nearly a century and a half to the work of England's Michael Faraday, superconductivity was not discovered until 1911 when the Dutch scientist, Heike Kamerlingh Onnes, observed it in mercury at the 452°-below-zero temperature with which he had succeeded in liquefying helium three years earlier. In 1917 two vital strands in the emerging science of cryogenics were tied together by Dr. Francis B. Silsbee of the National Bureau of Standards. Kamerlingh Onnes had separately noted two effects—(1) the disappearance of superconductivity when electrical current exceeded a critical value, and (2) the disappearance of superconductivity when an external magnetic field of more than a critical value was applied. Silsbee supplied the needed cause-and-effect hypothesis, maintaining that "the effect of electrical current on the critical temperature of a superconductor is caused by the magnetic field produced by the current."

Even with these discoveries, superconductivity remained only an object of scientific curiosity until 1960, when some materials were found to remain superconductive in magnetic fields approaching 100,000 gauss. Soon after, high magnetic fields were generated almost without loss and other useful materials were discovered. Helium liquefiers, developed during World War II, provided a more readily available low temperature environment, contributing to the rapid accomplishments.

The newly-founded NBS Cryoelectronics Section represents the fruition of a half-century of fundamental explorations at the Bureau. Formal constitution of the section, under Dr. Robert A. Kamper, indicates the escalating importance of cryoelectronics in modern science and technology. In keeping with the historic NBS role of providing a compatible national measurement system, the section is working on cryoelectronic frontiers to improve physical standards and advance the country's measurement capability.

Close attention is being given to the Josephson effect, a phenomenon observed in 1962 by the British scientist, B. D. Josephson, and believed to provide a basis for devising sensors of remarkable sensitivity for purposes of monitoring subtle changes in numerous systems. The Josephson effect occurs where two superconductors are weakly linked by touching together two pieces of superconducting metal that have been allowed to form a thin layer of insulating corrosion. Pairs of superconducting electrons "tunnel" across the barrier, creating a current without any drop in voltage. Scientists can apply a given voltage to the junction and make ultra-refined measurements—already, they have gotten down to a hundred millionth of a millionth of a volt.

NBS experimenters foresee important applications—for example, in extremely sensitive magnetometers, in sub-millimeter wave technology, and in very-low-temperature thermometry. A Bureau team has looked into the theoretical limitations of noise (electrical-interference) thermometry with the Josephson effect, constructed a practical system for testing in the one-thousandth-of-a kelvin range, and analyzed the potential improvements that superconducting devices could bring to nuclear magnetic resonance detection.

New alloys for low-cost transmission of electrical power may result from a recent study indicating that liquid hydrogen rather than the more expensive liquid helium might conceivably be used to make superconductors out of certain materials. Experimentation was carried on by scientists from NBS, the Naval Ship Research and Development Laboratory, the Naval Research Laboratory, and the Westinghouse Aerospace Division. These researchers, using beta-tungsten metal compounds, changed the alloys' "atomic ordering" (the special position of certain atoms in the alloys' crystalline structure) and demonstrated that such changes can raise the critical temperatures needed to turn the alloys into superconductors. This might permit use of liquid hydrogen as the cooling agent for purposes of long-distance, loss-free transmission of electrical power.

With this kind of progress, the novelty of cryoelectronics is being upstaged by its unique practical value. The stranger-than-fiction laboratory world—where air is made liquid, steel is rendered brittle as glass, rubber balls shatter rather than bounce, and lead rings like a bell—is enormously significant as well as entertaining and intriguing. Economists who describe the 1960's as an era of liquid helium technology are forecasting that the 1970's, in similar fashion, may become "the era of superconducting technology."

The Federal Power Commission, with cryoelectronic advances in mind, has estimated that AC and DC power-tool networks with new generating capabilities alone might

NATIONAL BUREAU OF STANDARDS

CRYOELECTRONICS RESEARCH—*Here amidst the Rockies at Boulder, Colo., scientists are investigating the application of cryogenics to electronics. A Cryoelectronics Section was established last year within the National Bureau of Standards Cryogenics Division. Activities are coordinated with related work at the Bureau's headquarters near Gaithersburg, Md.*

bring net capital investment savings of $11 billion by 1980. The Linde Division of Union Carbide Corporation, in another study for the Edison Electric Institute, recently demonstrated the feasibility of transmitting high-voltage alternating-current electric power through underground cables made of superconducting niobium tubes immersed in liquid helium at −452° F. The power-carrying capacity of a superconducting cable of extremely pure niobium was estimated at about 25 times the capacity of a conventional underground cable—which means that one 20-inch superconducting pipe system could handle up to 10,000 megavolt-amperes of power at a voltage of 345 kilovolts, or more power than is currently consumed by the City of New York.

Cryoelectronic innovations with similar benefits in other fields are believed feasible by many observers. In air transportation, for example, British experts estimate that the weight of the generators on the supersonic Concorde could be cut in half by the use of superconductive fields, with a resultant 300,000-pounds ($720,000) or better increase in the aircraft's revenue-earning potential. Development of superconducting rotating machines, it is argued, would offer advantages such as drastic reduction in losses, elimination of friction in gyros, reduction in weight, reduction in volume, extension of range of existing machines, reduction in initial cost, and lower operating costs.

Even if only a few of the many potential applications of cryoelectronics become realities in the next two or three decades, they are likely to bring about awesome improvements in our technology and civilization. The very language we speak may be affected, for who will dare to say of something undesirable that it has "a chilling effect," when supercold will have become a key to renewed vitality and power?

In pursuing the promise of cryoelectronics we emulate Prometheus, the legendary Greek titan who stole fire from the heavens as a gift to man. Today's promethean enterprise exploits not fire but extreme cold as a means of unlocking immense forces and giving mankind increased mastery of his universe.

—National Bureau of Standards

Catalog Shows Offer U.S. Products T

American manufacturers can display their complete product lines in foreign markets yet never leave the office. Through catalog shows, U.S. firms have the opportunity to show literature in Commerce-organized promotions usually featuring one industry's range of goods.

Future catalog shows now being organized by Commerce for 1971 include a February promotion in Beirut, Lebanon, of metal working equipment literature. Three catalog shows scheduled in Bangkok will cover: building materials, February; medical, hospital, dental and surgical supplies, April; and food processing and packaging equipment, May.

Recently, more than 4,800 American firms participated in 11 catalog shows, attracting over 4,500 visitors and introducing approximately 4,000 companies into market areas they had not previously touched. Government officials are always on hand to aid businessmen in pursuing leads.

In Poland during the 16-day Sixth International Catalog Exhibit at the Center for Technical Progress in Katowice, 878 companies sent technical literature for display. In Poznan, 271 firms were represented at a promotion accompanying the 39th International Trade Fair.

Building materials literature was shown in Oporto, Portugal in October while 932 firms each displayed general equipment information at catalog shows in Brno, Czechoslovakia, Bucharest, Romania and Zagreb, Yugoslavia.

Five shows in Bangkok over the past months have spurred about 2,500 firms to show literature in Thailand's market. Located at the U.S. Trade Center in Bangkok, the shows included: dental equipment; leisure time and sporting goods and toys; industrial and professional photography supplies; plant engineering and maintenance equipment; and hotel and restaurant equipment.

Information on future catalog shows is available from Thomas R. Padgett, Department of Commerce, BIC-918, Washington, D.C. 20230 (202-967-4727).

HELLO USA!—*Spelling out "USA" in catalogs are assistants at the U.S. Trade Center in Bangkok*

CATALOGS TO FRANCE—*A Frenchman concentrates on an American catalog while another businessman receives assistance in finding literature about products in which his firm has interests.*

To Potential Buyers Around World

where several shows are mounted. Bangkok will host catalog displays in February, April and May 1971.

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FACTS & FIGURES IN THE FAR EAST—*Product literature offers foreign businessmen explicit facts and figures on what American industry has to offer. Catalog shows often accompany trade center and trade fair exhibitions, providing a wider product range than is available on the display floor.*

BUSINESS IN YUGOSLAVIA—*In Zagreb during October, 932 American firms were represented through their literature in a general equipment catalog show. Bucharest and Brno staged similar shows. Above, a businessman, left, discusses the literature with officials.*

DOMESTIC BUSINESS REPORT

- Minority businesses after 15 months
- Dramatic increase in major household appliance purchases
- Miami Pow Wow may go world wide
- Usable waterfront grows scarce
- 10,000 new jobs for minorities
- A new role for Commerce

Federal Minority Business Programs Establish 'Solid Beginning' For Future

The Department of Commerce, in a 200-page report on the first 15 months of the Administration's overall minority business enterprise program, said the job of providing minority opportunity is "too big for government alone.

"Government can help create the conditions for opportunity," the report said, "but the minority entrepreneurs of America will move into the system only if American business and the American majority make it possible for them to do so."

The Minority Business Enterprise report, released Dec. 17 by the White House, noted that there has been a "solid beginning for a serious long range undertaking" to bring about "a massive and permanent improvement in the opportunity for every American to participate fully" in the U.S. enterprise system.

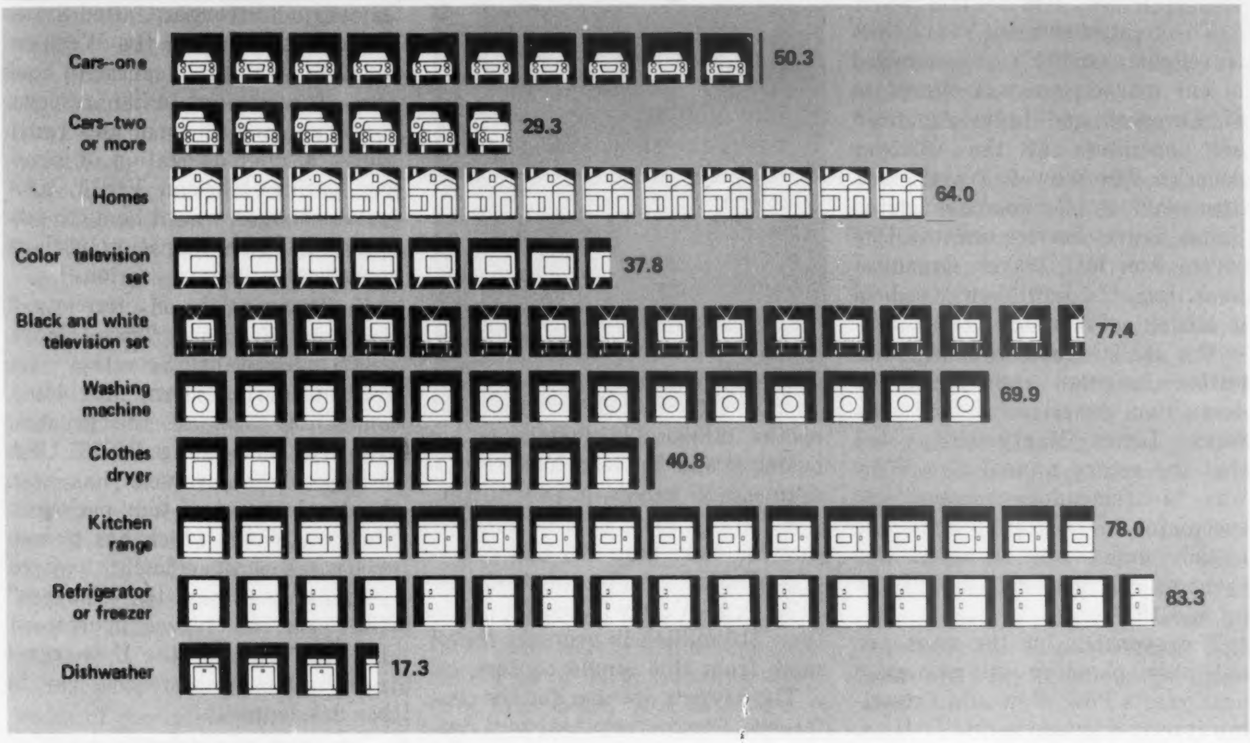
The report said the Federal government cannot change individual attitudes by fiat, but it can provide incentives toward change and can set the tone and provide the leadership for greater receptivity and cooperation.

In its list of specific accomplishments, the report included:

- $315,236,045 in financial grants, loans and guarantees by Federal agencies to minority business enterprises.
- $21,814,292 worth of Government procurement contracts to minority firms through the Small Business Administration's Procurement Program.
- $8,220,042 in direct procurement from Federal agencies to minority firms.
- In less than 14 months, 100 private commitments to create Minority Enterprise Small Business Investment Companies (MESBICs); 20 are in operation with an average capital of almost $300,000, providing a total leveraged potential of close to $90,000,000 for investments.
- Small Business Administration's direct and guaranteed minority business loans of 8,432, nearly double the previous year's number.
- 13,300 minority-owned service stations within the year, from an estimated 10,800.
- An increase from 14 to 82 in the number of minority-owned automobile dealerships.
- The Department's $20 million Indian program (Economic Development Administration) which has helped over 50 tribes in establishing minority enterprises.
- The Small Business Administration's 944 management courses with 4,651 minority enrollees; 927 conferences and clinics attended by 4,671 minority group members; and 297 workshops in which 3,160 minority members participated.
- A census now under way of all minority businesses in the country will be completed by July 1971.

—Office of the Secretary

Percent of Total Households Owning Cars, Homes, and Selected Household Durables: 1970



Consumers Buy More Big-Ticket Items

Dramatic increases over the past ten years in the number of U.S. households owning color television sets, dishwashers, clothes dryers, two or more cars and other big-ticket items are disclosed by a recent Census Bureau survey.

More than 29 percent of the population now owns two or more cars; in 1960, the percent was 16.4. Today nearly 80 percent of the persons living in the U.S. own at least one car, and within the next two years, over 33 percent expect to buy a new car. Car purchases fell during 1970 after registering record levels in 1968 and 1969.

The affluence of the Americans is reflected in other census figures—64 percent of the populace own their homes; 77.4 percent watch their own black and white television set, and 37.8 enjoy the luxury of owning a color TV, while 95 percent own some kind of set.

Items formerly considered luxuries and owned by a very few are beginning to appear in more and more homes. In 1960, 4.9 percent of the population possessed dishwashers and 17.4 percent, clothes dryers. In 1970, these figures have grown to 17.3 percent owning dishwashers, and 40.8 percent, clothes dryers.

In spite of the fact that more than 7 percent of householders surveyed in October expected substantial income declines, buying expectations are still high. The Bureau reports that of every 100 households in the U.S., 7.9 percent are planning home improvements. More than 8 percent of these households expect to buy new living room furniture, and 6.3 percent will place it on new carpets. An overall picture shows an expected annual outlay of $237 per household for furniture, appliances or home improvements.

The Census Bureau points out that consumer spending on cars, homes, and other durables has played an increasingly important role in determining the level at which our total economic activity will proceed. Changes in consumer spending almost invariably result in rapid and important changes in such economic measures as industrial production and Gross National Product. For the short-term as well as the long-term outlook, consumer demand is expected to be a source of strength within the economy.

Data on expectation to buy during the months ahead are detailed by family income, age and race of household head, and region, in "Consumer Buying Indicators" (P-65, No. 33). Send 15 cents to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

—Census Bureau

Discover America Conferences Promoting VISIT USA Program

The greatest array of VISIT USA travel merchandise ever assembled in one marketplace was offered to 87 European and Latin American tour operators at the Discover America Pow Wow & Travel Mart. Sponsored by Commerce's United States Travel Service and the Discover America Travel Organizations, Inc., the Pow Wow was held in Miami last month.

The DATO International Committee chairman and vice president, Pan American World Airways, James Montgomery, said that the second annual Pow Wow was "a tremendous success." So successful in fact, that plans are already under way to repeat the event on a larger scale in Chicago in mid-1971.

The sponsors for the mart are not only planning on enlarging next year's Pow Wow and extending it over a longer period of time, but they are considering opening the registration world-wide. At the third USTS Travel Seminar in Sydney, Australia, early next year, VISIT USA persons are scheduled to promote the Chicago conference. Invitations will be made to the Bi-Centennial Committee and the 1976 Winter Olympics Committee to attend the annual mart to publicize these special events for the foreign attendees.

As a result of the Pow Wow:

- One hotelier sold more than 7,000 rooms for the 1971-1972 seasons, recording more than $150,000 in overseas business.
- Fifty-eight of the U.S. companies represented in the 104 booths tallied $291,000 in actual business and project future commitments in excess of $8.1 million.
- DATO and USTS estimate that the more than 100 U.S. travel organizations represented at the 1970 Pow Wow will receive more than $16 million in overseas travel sales from this single conference.

The keynote speaker for the conference, Commerce's Assistant Secretary for Domestic and International Business, Robert McLellan reported, "The foreign tour operators were obviously making contacts and doing business within the excellent facilities and the modus operandi provided for the travel mart." More than 3,000 interviews were accomplished over the three-day period. Stronger United States representation from the West enabled the foreign "buyers" to book tours focusing on Indian reservations, as well as farm and ranch tours. A pilot delegation of seven key Latin American VISIT USA travel producers went home to recommend full participation by these countries in the next session.

NEW YORK
CONVENTION
AND
VISITORS BURE

SELLING MANHATTAN—*The New York Convention and Visitors Bureau Tourism Coordinator, Eileen Roddick-Roberts, explains New York City tour benefits to Kirsti Vanlamo, VISIT USA Representative, FINNAIR, at the Miami Pow Wow.*

In discussing the effectiveness of the Pow Wow and Travel Mart, USTS Assistant Secretary for Tourism, C. Langhorne Washburn, comments, "One of the greatest problems in building VISIT USA business from overseas has been the development of tour packages. The Pow Wow, which has proved to be the most efficient way of bringing together the "buyers" (the overseas travel operators) and the "sellers" (the U.S. travel organizations), shows the way to this development."

The mart also solves a logistics problem for many Europeans. Business it would ordinarily take them weeks to write can be handled in a few days through this medium. Next year the overseas "buyers" will also be offered the opportunity of touring localities they would like to see, after the session is over.

Because of Japan's special travel needs, United States Travel Service may create a separate Pow Wow and Travel Mart just for the Japanese market. The second ranking overseas supplier of tourists to the U.S., Japan's requirements are unique—the language problem is greater, and her citizens travel almost entirely in groups with complete pre-planned arrangements. USTS's fourth Travel Seminar scheduled for Tokyo next year will help decide whether to include them in the Chicago conference or to develop a mart aimed strictly at Japanese needs.

—*United States Travel Service*

Air-Right Construction May Solve The High Cost Of Port Facilities

A major part of the Government's merchant marine revitalization program will be the up-grading of terminal facilities by encouraging new land uses over old port facilities.

Addressing the North Atlantic Port Association's annual meeting in Washington, D.C., early this month, Deputy Maritime Administrator Robert J. Blackwell called attention to the concept of achieving "optimum utilization of waterfront land" through the use of air-right construction, and stated that the Maritime Administration believes a port authority should not "act in a purely passive role, but should consider the substantial influence its port development planning programs can have in shaping future utilization of waterfront property."

Blackwell warned that in the wake of mounting demands upon the waterfront for recreational, industrial, and residential uses, the metropolitan centers shall soon run out of usable waterfront. This demand plus the fact that many ports are lagging behind past economic growth levels because of containerization, the time has come, he said, "to revitalize, up-grade, or otherwise determine alternative futures for these ports."

To illustrate the use of how air-right construction can play a key role in which marine terminal facilities can be up-graded, Blackwell cited the proposals that have been made for New York City and San Francisco.

"Along the central portion of the Brooklyn waterfront in the Port of New York," he said, "there have been some proposals to construct several high-rise structures which it is estimated could yield a total potential for capital improvement of several million dollars. The major portion of this gain by far would come from the claimed economy of construction rather than the use of the proposed air-rights structures.

Robert J. Blackwell
Deputy Maritime Administrator

"Also, in the plan for New York's Hudson River, there have been proposals for landscaping the roof tops of cargo-handling sheds. The landscaped portion would be an extension of a public park that was located in the upland area of the marine terminal. In San Francisco, an architectural firm has come up with a design for a waterfront plaza which would replace three or four existing piers and culminate in a 550-foot high skyscraper."

Blackwell said that many other ports besides New York and San Francisco have waterfronts close to the business and financial districts which attract commercial establishments distinctly removed from the traditional marine services. Often associated with this is a flourishing tourist trade drawn by the maritime atmosphere and visual attraction of the bay or harbor which encourages the growth of restaurants, hotels, trade and convention facilities.

Blackwell called for a cooperative effort by port and city planning agencies to "decide on an overall goal to achieve a favorable psychological response from both port and city community interests."

—Maritime Administration

Ford Foundation Invests Millions To Promote Minority Enterprises

The largest single private contribution made to government sponsored minority business will open 10,000 new jobs for blacks, Puerto Ricans and American Indians in nine cities and two rural areas of the United States.

McGeorge Bundy, president of the Ford Foundation, and Secretary Stans announced this month that the Foundation is investing $2.5 million in grants and loans to support Commerce's Office of Minority Business Enterprise MESBIC (Minority Enterprise Small Business Investment Company) program. The funds will be used to promote new and expanded minority owned businesses in Chicago, Dallas, Newark, Los Angeles, New Orleans, New York, St. Louis, Washington, D.C., Philadelphia, and in Oklahoma and Georgia.

According to Stans, the Ford Foundation action will mean more intensified assistance to minority business across the country.

Part of the monies will be used as a grant to the New York City based Interracial Council for Business Opportunity, the founder of the New York MESBIC. The $300,000 allocated for this grant will enable ICBO to offer more services and technical support to minorities through its local councils in New York, Newark, Washington, D.C., Los Angeles, New Orleans, Dallas and St. Louis.

Abraham S. Venable, Director of OMBE, said that the Ford Foundation's contribution to the six MESBICs will open avenues to more capital from banks, corpora-

What's Happening

BUSINESS, 1970s STYLE—*"The story of business' new citizenship must be the best covered of the '70s, and you must be the leaders in this new direction," said Secretary Stans before 200 business and trade publications publishers and editors attending the Commerce Department/American Business Press Conference in Washington D.C. this month. Keynoters at the two-day session were (clockwise) Paul W. McCracken, Chmn. of the Council of Economic Advisers; Sec. Stans; Rocco C. Siciliano, Under Sec. of Commerce; John A. Volpe, Sec. of Transportation; and George W. Romney, Sec. of Housing and Urban Development. The picture in the center was shot during a question and answer session.*

tions and the Federal Government for building minority enterprise. It is estimated that the Foundation money could generate $20 to $25 million in additional capital for minority-owned business ventures.

Most of the funds are delegated for MESBICs already in existence. In New York, however, the Foundation is investing $750,000 for the establishment of Minority Equity Capital Co., Inc. This Interracial Council sponsored MESBIC has already received a commitment of $350,000 from Metropolitan Life Insurance Company and an additional $150,000 from church groups as part of the matching funds needed from the Council to set up the new investment company.

To help Puerto Ricans in this country, the Puerto Rican Forum will use its $250,000 Foundation grant as base capital for a MESBIC operation, in addition to fund-raising efforts for business development.

In the U.S. today, minority groups make up over 17 percent of the population, but own only 3 percent of businesses. Because of this OMBE launched the MESBIC program a year ago to provide the means for qualified members of these groups to enter the American free enterprise system. MESBICs, which are privately owned and run, receive technical assistance and management support from OMBE.

Commenting on the help from the Ford Foundation, Venable said, "The MESBIC program is one of our major vehicles in providing venture capital and technical assistance to minority businessmen. The announcement by Ford Foundation of its strong support of this program is commendable, and is another excellent example of its unselfish interest in helping minorities truly achieve equal opportunity in America's free enterprise system."

The six recipients of the Foundation's contribution are CEDCO Capital Corporation of Chicago, Georgia Council on Human Relations, Zion Non-Profit Charitable Trust of Philadelphia, the Puerto Rican Forum, Oklahomans for Indian Opportunity, and Minority Equity Capital Co., Inc., of NYC.

—*Office of Minority Business Enterprise*

Commerce Moves Into Business Forum Role

"Can we then assume that the United States Department of Commerce will become a champion for business to help State commerce agencies?"

This question was asked by Ray C. Dickerson, Director of the Illinois Department of Business and Economic Development, when he and 47 other State and Territorial Secretaries of Commerce met in Washington, D.C., this month with Secretary Stans.

An affirmative answer came from William D. Lee, Director of the Department's Bureau of Domestic Commerce, who said that the Commerce Department is not the champion of business alone. Commerce represents the public in general in attempting to maintain a sound and growing economy. In this regard, the Department is fast moving towards becoming a forum for business."

Lee said, "We are working to anticipate State problems in the business arena, and to have reasonable courses of action ready for your consideration."

Sec. Stans said that the one-day meeting was the beginning of a closer Federal-State working relationship in matters affecting State Commerce departments. Discussions on economic development, business and environment, minority enterprise, domestic and international commerce, and foreign travel to the United States were spearheaded by officials from the Commerce Department.

—Office of the Secretary

Associates Cover Field In Commerce Service

In Charlotte, N.C., an alert market research committee keeps a finger on the pulse of market developments and trends for its constituents who include the area's finance, plastics, trucking and textile industries.

In East Los Angeles, minority businessmen are aided in drafting loan proposals and provided managerial assistance until they are successfully established in new business enterprises.

In San Antonio, Texas, exports to nearby Latin American countries are stimulated through a monthly international trade seminar.

And in the nation's capital, the Office of Business Services of the Department of Commerce serves as the hub of a giant partnership between government and more than 700 business and trade organizations serving as associate offices.

Activities of the associate offices place emphasis on the interests and needs of local business communities.

Throughout the United States, Commerce's "associates" include 616 Chambers of Commerce, a number of trade associations, minority trade organizations and state governmental agencies. Each office acts as a liaison between the business community and the nearest Commerce field office which provides resource material and professional guidance enabling them to extend the business services of the Department to industry and trade at a state and local level.

The associate offices, strategically located in business districts, include Commerce publications in their libraries and answer inquiries about Commerce Department services. Many of the "associates" are most effective in the role of co-sponsor of international trade seminars and departmental seminars on new technological advances such as the input-output analysis program. They also assist with procurement, minority business enterprises and business development conferences.

Lou Conman, Pittsburgh field office director, said, for example, the field office supplies the speakers and guidance for developing the international market and the Washington, Pa., Chamber of Commerce arranges a monthly luncheon and brings in the prospective exporters. Washington, Pa., is one of 12 associate offices active in international trade promotion in the Pittsburgh region.

The North Carolina Department of Conservation and Development, an associate office working with the Commerce field office in Greensboro, N.C., has a full time export development coordinator to promote international trade for North Carolina's industrial and agricultural products.

—Office of Business Services

Business Calendar

Jan. 6—Ocean City, Md.—Seafood Symposium, including industrial exhibits, sponsored by Delmarva Advisory Council Citizen Seafood Committee, Maryland Convention Hall. For information contact Mrs. Georgia C. Marshall. Phone 301-742-9271.

Jan. 6—Chicago, Ill.—Inaugural luncheon for the Discover America Travel Showcase sponsored by Discover America Travel Organizations. Contact J. Lindeman. Phone 202-293-1433.

Jan. 8—Anaheim, Calif.—Travel Day luncheon sponsored by the Anaheim Visitor & Convention Bureau. Contact W. F. Snyder. Phone 714-533-5536.

Jan. 21-24—Chicago, Ill.—American Society of Travel Agents Central Regional Conference. Contact Vincent Sheridan, Custom Travel Service, Inc., 1755 W. 95th St., Chicago, Ill. 60643.

Feb. 6-13—Sydney, Australia—VISIT USA World Tourism Seminar sponsored by the United States Travel Service and American Airlines. Contact Gordon McCoun in Washington, D.C. Phone 202-967-4853.

SCIENCE & TECHNOLOGY REPORT

- First interim Metric Study report
- Global weather reporting network established
- Standards publishes consumer booklets
- Voluntary product standards
- A river runs again with spawning salmon
- Patents of special interest

First Interim U.S. Metric Study Report Calls For International Standards Action

The ,first interim report on the U.S. Metric Study transmitted to the Congress last week by Secretary Stans reflects a substantial concern about the need to strengthen the effectiveness of the United States in international standards negotiations.

As explained by National Bureau of Standards Director, Lewis M. Branscomb, the report was prepared as "an offshoot of our inquiry into the issues of metrication; it does not consider specific means to achieve such increased effectiveness. Rather, it calls attention to significant events and trends that have come to light in our Metric Study and have led us to certain basic conclusions."

The metric study was established by Public Law 90-472 and approved on August 9, 1968. This Metric Study Act, coming as it did after 11 years of Congressional discussion, requires the Secretary of Commerce to "determine the impact of increasing worldwide use of the metric system on the United States.

The Secretary assigned responsibility for conducting the Metric Study to the Bureau of Standards.

At the completion of the three-year Metric Study next August, Secretary Stans will send his recommendations to the Congress.

The present interim report points out that in recent years there has been an acceleration in the internationalization of engineering standards which use a nation's measurement language as a basis for product quality, uniformity and compatibility. Such standards have served as a keystone in U.S. industrial development as they have in other industrialized nations.

It is now being proposed in Europe that engineering standards be coupled with product certification procedures. Products not certified as satisfying the applicable standards may effectively be barred from the markets in question until proper certification is secured. If put into effect, this proposal will signal substantial influences upon international trade, commerce and other areas of international relations.

"Some product certification scheme for exports will probably be required," the report concludes, "to maintain a competitive position if European plans are successful. It can be either a plan compatible with those now developing in Europe or a distinctively U.S. approach.

The interim report concludes that "the international standards issue lends some support to a metric conversion in the U.S."

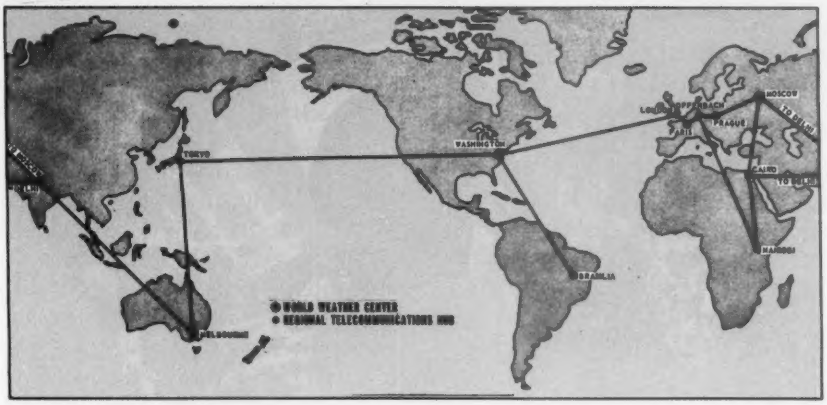
Another conclusion of the report is that "relatively modest changes in the import-export pattern of measurement-sensitive goods can have a serious impact on the U.S. balance of payments. Hence, the relations between standards, standards utilization and trade should be the subject of careful study to develop the policy basis for U.S. participation in international standards development and utilization." Also, "product certification emerges as a primary consideration in the utilization of standards."

The report recommends that:

- Commerce take appropriate steps to determine whether the economic impact of agreements, such as the Tripartite Agreement on electronic components between the United Kingdom, France, and West Germany, can be expected to affect the U.S. balance of payments significantly or otherwise work against the best interests of the United States.
- Commerce should devise, with other interested Federal agencies, and responsible standardizing institutions, a firm U.S. policy about participating in international standards activities, including what role the Government should play and provisions for furthering the public interest as well as the competitive position of U.S. industry in world trade.
- If such a policy dictates increased participation, appropriate steps should be taken to see that such participation is sufficient to meet the rapidly increasing international standardization activities that have been predicted for this decade.
- Commerce, with other Federal agencies, should initiate action to determine whether or not the U.S. should participate in international product certification agreements. If adherence to such agreements is deemed desirable, an appropriate mechanism for certification within the U.S. should be developed. If adherence is not believed warranted, the U.S. should insure that an appropriate alternative strategy is devised and followed.

—*National Bureau of Standards*

World Weather Watch Global Telecommunications System



Global Weather Reporting Network To Improve Forecasting Capacity

Inauguration of a high-speed 24-hour "hot" weather line between Tokyo and Washington announced by Commerce's National Weather Service this month marks the beginning of a vast new weather reporting network which over the next five years will link major cities throughout the world.

This network is one element in the World Weather Watch, a long-range plan for improving weather forecasting started by the World Meteorological Organization. It is expected to produce fuller and faster exchange of weather data to permit the making of longer-range forecasts.

The new "hot" line flashes weather information halfway around the world at a rate of 3,000 words per minute. Weather Service Communications Chief John Straiton reports that this is far too fast for human eye and brain, so, "actually it's computers talking to computers."

During the next five years, the plan calls for other high-speed lines to be opened with three World Weather Centers located in Washington, Moscow, and Melbourne and eight Regional Telecommunications hubs at Brasilia, London, Paris, Offenbach, Prague, Cairo, Nairobi, and Delhi.

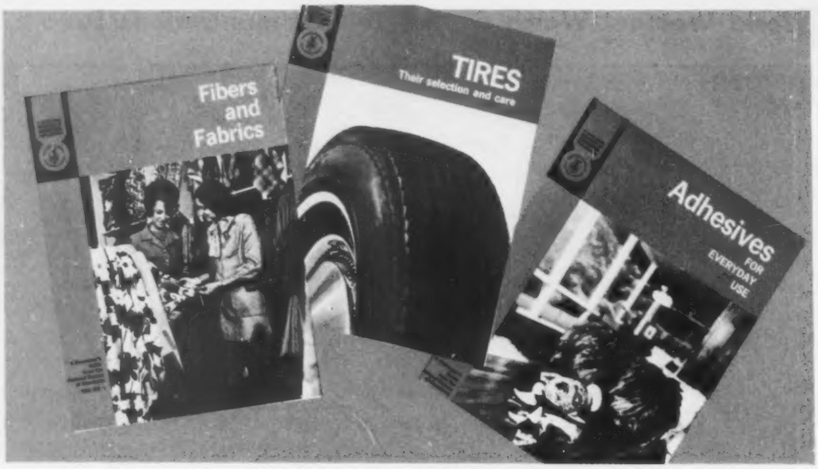
When the World Meteorological Organization, a specialized agency of the United Nations, announced the World Weather Watch, it gave this summary of requirements for world exchange of weather data:

"In any period of 24 hours about 100,000 observations of the weather conditions at the surface of the earth and about 11,000 observations of the upper atmosphere are recorded. These observations are made at some 8,000 land stations distributed among all countries of the world, on 3,000 transport and reconnaissance aircraft and 4,000 merchant ships."

This mass of information, which is even larger now, is gathered day and night at fixed times standardized throughout the world, then assembled and retransmitted as global summaries. These provide the basic data plotted on weather maps all around the world, generally at six-hour intervals.

As more and more information becomes available in years ahead, much of it through satellites and balloon-borne instruments, the need for high-speed exchange of massive amounts of data will become even greater. Thus the Washington-Tokyo link represents a bare beginning of the Global Telecommunications System in years to come.

—*NOAA*



CONSUMER SERIES—*First in a series of consumer information booklets are these published by Commerce's National Bureau of Standards to assist the nation's consumers make better informed decisions in the marketplace.*

Standards Bureau Publishes New Series Of Consumer Booklets

To help the consumer make better informed decisions in the marketplace, Commerce's National Bureau of Standards, has initiated a Consumer Information Series of booklets on a variety of topics.

First to be published have been booklets pertaining to fibers and fabrics, tires, and adhesives. Five others are in process of development. They are *Hearing Aids, Care of Books and Documents, Flooring, Plywood*, and *Seat Belts.*

Fibers and Fabrics provides information needed to select and care for fabrics, apparel, furnishings, and other textile products. The booklet discusses the commonly used natural and man-made fibers, lists the properties of the fabrics made from each fiber, and presents tips on proper handling and care.

Buying tires is a difficult decision, one with decided safety overtones. And properly using and maintaining tires is often as important a factor in tire service as making the purchase decision. *Tires, Their Selection and Care* provides the information needed to obtain maximum safety, wear, and performance from tires. It discusses such factors as matching the tire to driving habits, types of roads normally driven, and loads to be carried. Also covered are proper tire maintenance, and the relationship among driving habits, tire wear, and safety.

The *Adhesives For Everyday Use* booklet describes the adhesives now available and lists their major uses. Also covered are surface preparation, clamping techniques and drying times, and a series of step-by-step instructions and illustrations.

The booklets can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The booklets on tires and fibers and fabrics are priced at 65 cents. The adhesives booklet is 40 cents.

Although the Bureau of Standards does not test or recommend products, its research on measurement and standards produces information in many areas that is of potential value to the consumer. These booklets are based on material developed in technical programs carried out by NBS, supplemented by information readily available to NBS scientists and engineers.

—*National Bureau of Standards*

NBS To Strengthen Semiconductor Control Program

Increasingly severe control requirements in the manufacture of semiconductor devices has prompted the Commerce Department's National Bureau of Standards to expand its program on Methods of Measurement for Semiconductor Materials, Process Control, and Devices.

Although one of the world's most technologically advanced, the semiconductor device industry is still forced to proceed on a "batch basis" with many processing steps performed by hand. Trace impurities in crystalline materials, controlled to exceedingly fine dimensions and pinpointed spatially, are crucial to the functioning of semiconductor devices.

NBS has contributed to improved methods for measuring resistivity of silicon wafers and developed concepts making for operating conditions free from second breakdowns in transistors. Emphasis is now being given to germanium studies for gamma-ray detectors, carrier lifetime, and resistivity in homogeneities.

Thus, in the areas of materials, fabrication methods, and testing, the Bureau is helping to iron out problems and smooth the operations of this leading industry. (NBS Technical Note 511, "Measurement Methods for the Semiconductor Device Industry," 30 cents, Superintendent of Documents, Washington, D.C. 20402; order by catalog No. C13.46:511.

—*National Bureau of Standards*

Vermonter Got First Patent

The first patent issued by the U.S. Patent Office was awarded to Samuel Hopkins of Pittsford, Vt., July 31, 1790. His invention, "The Making of Pot Ash and Pearl Ash By a New Apparatus and Process," was signed by President George Washington.

Voluntary Product Standards

Voluntary Product Standards are developed by Commerce's National Bureau of Standards, usually at the initiation of industry in consultation with interested trade groups to establish requirements which are in accordance with the principal demands of the industry and, at the same time, are not contrary to the public interest. They may include dimensional requirements for standard sizes and types of various products, technical requirements, and methods of testing, grading and marking.

Once a Voluntary Product Standard is accepted, it is of value to manufacturers, distributors, purchasers, and consumers. Manufacturers and distributors can refer to the standard in sales catalogs, advertising, invoices, and labels on their products. Purchasers can order products that comply with a Voluntary Product Standard and determine for themselves that the requirements have been met. When incorporated into a legal document such as a sales contract or a purchase order, the requirements of a Voluntary Product Standard are enforceable by the purchaser or the seller along with the other provisions of the document. Consumers can look for reference to a standard on products and product labels when they shop.

Such standards are completely voluntary and are announced by *Commerce Today* for the information of manufacturers, purchasers, and distributors. Recently issued product standards include:

Instant Nonfat Dry Milk—Recognizes eight package quantities of dry milk based on quart equivalents; provides that the net weight of the package shall be based on 3.2 ounces (avoirdupois) of dry milk per quart of reconstituted milk. Standard aids the consumer in making value comparisons by limiting the number or quantities. Effective October 15, 1970. Requested by American Dry Milk Institute, Inc. Printed copies of PS 37-70 will be available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402, in two to three months. Meantime, recommended standard TS 152, same title, dated October 14, 1969, may be used. Single copies of TS 152 are available free of charge from the Office of Engineering Standards Services, National Bureau of Standards, Washington, D.C. 20234.

Package Quantities of Green Olives—Recognizes package quantities which are to be expressed in terms of net drained weights. This standard will aid the consumer in making value comparisons by limiting the number of package quantities intended for retail sale. Effective November 17, 1970. Requested by Green Olive Trade Association, Inc. Printed copies of PS 40-70 will be available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, in two to three months. Meantime, recommended standard TS 163 having the same title, dated June 3, 1970, may be used. Single copies of TS 163 having the same title, dated June 3, 1970, may be used. Single copies of TS 163 are available free of charge from the Office of Engineering Standards Services, National Bureau of Standards, Washington, D.C. 20234.

Paper Ice Bag Sizes—A recommended Voluntary Product Standard is being circulated for acceptance to manufacturers, distributors and users of the product. Developed by the ice industry in cooperation with NBS. Covers the dimensions and the capacities of paper bags intended for use in the packaging of cubed, sized, crushed, and block ice. Copies of TS 174 may be obtained from the Office of Engineering Standards Services, National Bureau of Standards, Washington, D.C. 20234.

—*National Bureau of Standards*

A River Runs Again With Spawning Salmon

The salmon have come back to Oregon's Willamette River.

Once too polluted to sustain fish life, the Willamette has, by the cooperative efforts of industries, State and Federal agencies, improved its water quality and modern fishways are being installed at the industrial complex at Willamette Falls.

In the wake of these improvements, Commerce's National Marine Fisheries Service (NMFS), a component of the National Oceanic and Atmospheric Administration, reports that this year's spawning run of coho and fall chinook salmon has topped all previous migrations.

Using a television camera and video tapes, a method developed by NMFS engineers, more than 35,000 cohos and 7,500 "lunker" chinooks were tallied at the new fishway.

Two more new fishways are being constructed by the State, with 84 percent of the funds provided by the Department of Commerce under the Columbia River Fishery Development Program. The remaining 16 percent is provided by private industry.

"The return of fall runs of salmon into the Willamette River is particularly gratifying," says Philip M. Roedel, NMFS director, "not only because it represents the recovery of a valuable resource, but also because it proves that a damaged environment can be revived if we wish to do so, and if we are willing to cooperate to achieve that end." —*NOAA*

Over 3½ Million Patents

More than 3,500,000 patents have been issued by the U.S. Patent Office. Patent No. 3,500,000 was issued March 10, 1970, to Benjamin F. Logan, Jr., and Myldred Kelly, widow of co-inventor John L. Kelly, Jr., for a "Self-Adapted Echo Canceller."

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

—Harvesting with sonic energy. A method of harvesting with the aid of strong high-amplitude sound waves. The sound waves are generated in a conventional harvester to activate the straw passing through with substantial vibrations to separate the seeds or the grain from the straw. Two separate ways for generating the sonic energy can be utilized including a large diaphragm in the main cavity of the harvester and an orbiting mass oscillator fixed to the concave element of the device where the seeds are initially separated from the straw. Patent No. 3,543,487 issued to Albert G. Bodine, 7877 Woodley Ave., Van Nuys, Calif.

—Dental apparatus. A remote control device including a transmitter and a receiver for wireless dental treatment permitting drive and speed variation by a dentist free to move with minimum physical encumbrance. The transmitter is carried by a protective handle having actuating means effective for selective operation of the transmitter associated with the receiver. Patent No. 3,543,405 issued to Peter Banhart, 27 Markststrasse, 7 Stuttgart-Bad, Canstatt, Germany.

—Recirculation unit. A recirculation unit that keeps hot water close to the kitchen and bathroom taps to prevent waste of water when it has to run in order to get hot. The unit has a pump, motor and temperature control which allows chilled water in the hot water line to be automatically drawn off and transferred to the cold water line. Heated water then takes its place near the outlets. Patent No. 3,543,836 issued to Rudolph M. Paulson, 217-29, 50th Ave., New York, and Roy A. Watt, 3359 210th St., Bayside, New York.

—Swimming aid. A swimming aid contoured on its upper side to engage the swimmer in a manner that allows freedom of motion of the arms and legs. The device provides buoyancy in direct relationship to the weight distribution of those parts of the body supported by the device. Patent No. 3,543,712 issued to Anastasios J. Vasilators, Wilmette, Ill. and assigned to A. V. American Ventures, Inc. of Wilmette, Ill.

—Fruit picking device. A fruit picking device which has a pivoted fruit engaging member by which fruit can be caught and pulled from their stems without damage to the selected or adjacent fruit. Patent No. 3,543,496 issued to Howard H. Foale, 59 Victoria St., Forestville, South Australia.

—Foot massaging device. A massaging medium unit mounted on a mat which can be placed on a floor surface in the shower bath or bath tub. The massaging medium is formed into various shapes and contours to make substantial contact coverage with the foot or hand to be massaged. Action is effected by moving the limb relative to the medium while they are engaged. A reservoir allows a liquid to filter through the medium to the foot being massaged. Patent No. 3,543,747 issued to Edwin P. Gustafson, 64, Washington St., Forestville, Conn.

In addition to patents, the Patent Office also registers trademarks for goods and services used within interstate commerce. Among the recently published trademarks were: "Zoop-The-Loop" for a target game, "Chatty Baby" for dolls, "Ecology" for parlor game, "The Swinger" for mop heads, "Sock It To Me" for soft drinks, and "Surprise Hunter" for market research services.

Abstracts and drawings of patents are published as they are issued in the Official Gazette of the United States Patent Office *each Tuesday. About 1,800 patents are issued each week. Copies of the* Official Gazette *may be obtained from the Superintendent of Documents, Government Printing Office.*

Kandoian Named To Head Telecommunications Office

Armig G. Kandoian, an independent telecommunications consultant from Ridgewood, N.J., has been named Director of Commerce's Office of Telecommunications.

Recently reorganized, the Telecommunications Office is responsible for an extensive program of telecommunication sciences, economic and policy analyses, and technical and analytic support for the new Office of Telecommunications Policy in the Executive Office of the President.

Kandoian was in engineering and management positions with International Telephone & Telegraph Corp. from 1935 to 1965. Subsequently he was President of Communication Systems, Inc., and an executive and director of other companies in the communications and computer sciences.

Science Calendar

April 20-23, 1971—Orlando, Fla.—Fifth Florida Industries Exposition Inventors Congress. Produced in cooperation with Commerce's Office of Inventions and Innovations, National Bureau of Standards, and the Patent Office.

May 10-14, 1971 — Gaithersburg, Md.—National Bureau of Standards, Flow—Its Measurement and Control in Science and Industry. Cosponsors: American Institute of Physics, American Society of Mechanical Engineers, Instrument Society of America.

DECEMBER 28, 1970

International Commerce

- Trade mission assesses West African markets
- East Africa poised for decade of growth
- Japan's boom keeps rolling along
- Investment opportunities in 12 nations listed
- U.S. firms offered 150 trade leads worldwide

Emerging Africa As A Selective Market For U.S. Exporters

Pages 35 and 41

International Trade Winds

Company News

AIR CARGO—Pan American World Airways, Inc., New York, is constructing a cargo terminal for storage and cargo handling at Accra's Kotoka International Airport. The facilities will increase Pan Am's storage and cargo capacity five times over that of its present terminal in Ghana. Due to open next February, the terminal will also house all Pan Am's customs clearance operations.

ENGINEERING—J. F. Pritchard & Co., Kansas City, and Compagnie Centrale d'Etudes Industrielles of Paris have entered into an agreement involving collaboration for the purpose of designing, engineering, and supplying of materials and equipment for the construction of processing plants for the chemical, gas and petroleum industries on a worldwide basis. Both companies are international engineering/construction firms. Pritchard is a subsidiary of International Systems and Control Corp.

MATERIALS HANDLING—Marion Power & Shovel Co., Marion, Ohio, granted a long-term license for the production of its heavy mining and construction shovels to Sumitomo Shipbuilding & Machinery Co., Ltd., Tokyo. Under the agreement, Marion's International Operations Group will market and support the machines with service and parts outside Japan and Okinawa. Sumitomo, a manufacturer of ships, materials handling equipment and industrial machinery, is Marion's first Far East licensee.

ELECTROPLATING—M&T Chemicals Inc., New York, subsidiary of American Can Co., has formed M&T-Japan with Nippon Chemical Industrial Co., Ltd. and Morimura Bros., Inc. The new company will manufacture proprietory chromium plating compounds, other plating chemicals and certain inorganic tin chemicals. A new plant is being constructed south of Nagoya in Japan's automotive industrial area.

PETROCHEMICALS—Lummus Nederland N.V., The Hague, subsidiary of The Lummus Co., Bloomfield, N.J., has been commissioned by Neste Oy of Helsinki, Finland, to design a 10,000 metric ton per year unit to produce high quality solvents and jet fuels. The unit is scheduled for completion in 1971 and will be integrated into Neste Oy's refinery and petrochemical complex at Naantali.

Newsmemo

East African nations will be visited by a Commerce Department trade mission next March, in a venture similar to the one to West Africa reported on Page 35. The mission will specialize in agricultural development. Its six to eight U.S. businessmen will represent firms selling implements, equipment and services.

A major U.S. trade association, the Motor and Equipment Manufacturers Assn., will team with Commerce specialists to show members' products at the 45th Frankfurt Auto Show in Germany next fall. A group from the Frankfurt U.S. Trade Center will assist the 35 U.S. companies to set up diagnostic and maintenance equipment.

Another trade association, the Scientific Apparatus Makers Assn., is planning to work with Commerce's trade mission staff on a mission-plus-exhibits promotion in the Soviet Union next April. SAMA explored other markets in Eastern Europe in April, 1969, also with Commerce assistance.

Still another industry group, the Association for Computing Machinery, will organize a professional colloquium at the Commerce-directed SYSTEMS '71 Exhibition in Munich next November. The association put on a successful technical seminar at Commerce's EDP show in Tokyo in October. That show reported sales totals exceeding $40 million. Germany is currently the largest computer market outside the U.S.

Item 437.76, Tariff Schedules of the United States, is getting special fast handling at U.S. Customs posts on the Canadian border. The item covers human organs imported for transplantation, and is of special interest in an organ exchange program developed recently in surgical centers in Canada and the U.S. The organs, cooled in containers, must reach recipients within hours. Though subject to usual entry procedures, they are duty free.

Back again for its annual between-shows promotion at the Tokyo U.S. Trade Center was the Rikei Corp., representing 29 U.S. electronics firms. Last year's Rikei display brought sales of $3.9 million. The 1970 event led to predictions of $5 million in sales as 2,790 buyers came to inspect computer peripherals, measuring instruments, electronic production equipment and components.

NOTE: This column previews or underlines special aspects of world trade developments, with a particular focus on Bureau of International Commerce export and investment promotions. It is not intended to substitute for the detailed reporting and analysis in our regular news columns.

ARRIVING IN LAGOS—*Agricultural mission hurries to appointments. From left, Smith, Walser, Harrah, Wood, Cummings, Palmer, Dross; not pictured, Lipscomb.*

W. African Markets Of 70s Assessed By Trade Mission

The markets of West Africa should become increasingly attractive for suppliers who have appropriate product lines and a good reserve of tact and patience.

U.S. firms interested in entering these markets will need to do a considerable amount of homework, however, as development priorities in each country to a large extent will set the demand trends for the 70s. In addition, newcomers will have to cope with trading practices and patterns established before the countries of the area became independent.

A U.S. Agricultural Development Trade Mission came to this conclusion after completing a tour of Ghana, Nigeria, and Congo (Kinshasa) recently.

The group talked with decision-making officials in the Ministries of Agriculture in each country; with agricultural trading firms, and established African trading companies; and with local agents and distributors. The mission members, offering such products as basic agricultural implements and machinery, and feed ingredients, chalked up more than $550,000 in sales while there. They expect to sell another $8 million worth in the next year or two. The seven business members established 10 agencies in the cities visited, and are negotiating for an additional 24.

The countries visited—all recently independent—appear to have sufficient material and human resources to justify optimistic predictions for rapid economic growth during the next decade, observes Mission Director Herbert J. Cummings, who is Director of the Commerce Department's Overseas Personnel Division.

Despite the interest in the products represented, however, the mission returned with mixed feelings about the potential for U.S. sales in West Africa, Cummings reports. Several obstacles confronted the businessmen—obstacles ranging from the need to prepare product literature and labels in French for the countries that were French and Belgian colonies to coping with entrenched market positions of trading organizations based in the former mother countries.

In addition, the Mission Director points out that specific market assessments will be realistic only if they take into account the immediate and long-term priorities established by the respective governments. "In the Congo, for example," he says, "President Mobutu has placed highest priority on transportation followed by agricultural development. Thus, there is already a substantial demand for heavy construction and transportation equipment and services. A market for American farm equipment and implements adaptable to the specific needs of the country's agricultural development is emerging but its growth rate will for the next few years be heavily dependent upon the progress made in the transportation development programs."

In Nigeria, Cummings explains, great emphasis is being placed on agricultural development at the government level: "Americans who plan to enter the market for agricultural equipment and services would be well advised to visit selective agricultural departments.

"The country, with an estimated population of 60 million, within the next five years will become one of the world's leading oil producers and a significant market for a wide range of agricultural equipment," he points out.

Ghana's foreign exchange reserves which were substantial at the time of independence were depleted by a previous government and at present the foreign-exchange shortage represents an obstacle to the expansion of U.S. exports to Ghana. Under present Ghanaian regulations exporters to Ghana, including U.S. exporters, face 180-day payment terms. Despite the present gloomy outlook, the long-term economic prospects appear good.

There is no easy way to assess market potential for specific goods and services in the countries of the West African area, the Mission Director concludes. What is certain is

QUESTIONS FROM THE FLOOR—*Press conferences in the cities visited by the mission to West Africa were well attended, sparked lively interest. Photo at right shows Ghanaians at work in the control room of Volta River Dam.*

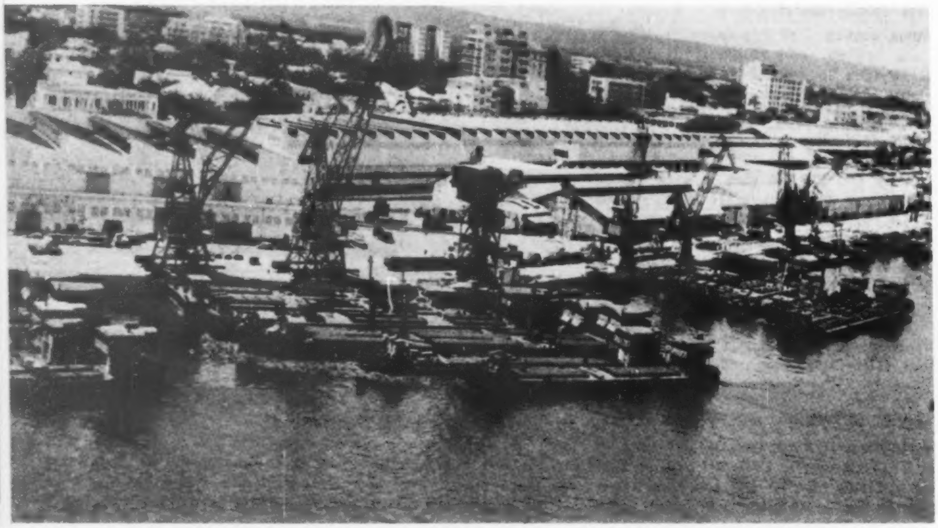
the need for completion of basic homework prior to initial visits to these countries. This homework should include advance arrangements in so far as possible for meetings with specific local businessmen and government officials. Assistance is available from Department of Commerce Field Offices and the Africa Division of the Commerce Department.

Tips from participants

Some of the individual members' comments focus on specific products or areas:

P. J. Harrah, of Bloomfield Manufacturing Co., Bloomfield, Ind., manufacturers of versatile mechanical and mobile lifting jacks, notes that now is a good time for U.S. firms to get into these markets—by selling the less technical items and advancing, with the countries, to more sophisticated equipment as needed later.

Forest W. Lipscomb, Lipscomb Grain & Seed Co., Springfield, Mo., observes that in Congo it will take more than "just a sale or two to make an American product popular, because too many businessmen from other countries have sold and run away. The Congolese want to know they can get repair parts for machinery and a distributor or dealer must be prepared to carry an inventory."



CONGO'S PRIORITIES—*As transportation development programs progress, the market for agricultural implements and equipment will grow. Above, Kinshasa port.*

Of the three countries visited, Ghana is the only one in which Adrian Walser's firm—Associated Manufacturers International Corp., North Miami Beach—had previously made a sale. He reports that the mission contact was helpful in tripling that order—for peanut, corn, and cotton planters—and he expects more sales to follow. He feels that his visit to Nigeria and Congo was premature but that business will develop in three to five years.

Production Acres Manufacturing Co., Oskaloosa, Iowa, was represented by Cloyce D. Palmer. The company makes, among other items, feed-handling equipment and machinery for blending and spreading fertilizers. Palmer comments that the mission results can be measured only in long-term export dollars, but lists several results of specific benefit to his firm: "I doubt that I would have gone to that part of the world as an individual. If I had, I would not have been able to make so many valuable contacts in such a short period. I probably would have done business unknowingly with poor credit risks. I would not have been introduced to various local government officials who were interested in our irrigation equipment."

The other businessmen on the mission were Harry J. Smith, Jr., St. John International, Inc., Washington, D.C.; Thomas E. Dross, Dalton, Cooper & Gates Corp., New York, and Thomas A. Wood, TAW International Leasing, Inc., New York.

U.S. Credit Seminar Set For African Cities

An export credit seminar, to be conducted by the Commerce Department's Bureau of International Commerce, is scheduled for four West African cities—Casablanca, Abidjan, Lagos, and Kinshasa—in February and March next year.

A team of ten members will represent organizations involved in financing international trade—manufacturing organizations, commercial banks, and four government agencies: Export-Import Bank, Foreign Credit Insurance Association, Agency for International Development, and Commodity Credit Corporation. Milton Berger, Assistant Director of BIC's Office of International Investment, will be the team leader.

The group is to spend five days in each city: three will be for seminar presentations and two will be open, permitting team members to pursue their individual business interests. Final dates are to be announced later.

Through discussions of U.S. export credit practices and procedures, the seminar concept is designed to dispel the idea prevalent in many developing country markets that U.S. credit facilities are not competitive with those of Japanese and European suppliers.

An export credit seminar sponsored by BIC in five Southeast Asian countries in the spring of 1968 met with enthusiastic response at every stop and reported an unanticipated bonus of $16 million in sales.

APPOINTMENTS IN HELSINKI—*At Palace Hotel, Instrumentation Mission gathers to talk with customers. Left to right, Nathan, Teeters, Muller, Greatbatch.*

U.S. Instrumentation Trade Mission Promotes Sales In Scandinavia

As their already highly developed economies continue to advance, the Scandinavian countries offer increasing market opportunities for instrumentation and technical components.

These are the kinds of goods promoted last month by a U.S. trade mission in Oslo, Copenhagen, Helsinki, and Stockholm. In all four countries existing engineering skills strengthen sales prospects for such items, the mission reports.

Through seminars, product demonstrations, and business appointments during a 2½-week visit, each member made valuable contacts, and each hopes to boost his company's export sales, according to Mission Director Joseph L. Muller of the Commerce Department's Trade Missions Division.

Sweden, with a highly industrialized economy, has no import quotas on industrial products and its tariffs are among the lowest in the world, Muller points out. It holds great promise, he says, for the sale of advanced instrumentation to enhance its output in the engineering industries (automobiles, ships, machinery), forest products, chemicals, primary metals, and food processing. Denmark, Finland, and Norway are also undergoing rapid industrialization.

Mission member Ernest Nathan, of Elmwood Sensors, Inc., Cranston, R.I., points out that the chances for selling temperature controls in Scandinavia are influenced by its climate; for example, airconditioning is almost nonexistent for homes and offices. "In our particular field, however, thermostats with fixed temperature, many industries buy them and use them," he says. "We can compete, and have done so successfully, in spite of freight and duty."

Wilbur O. Teeters' company, Hoke International, Cresskill, N.J., makes valves and fittings. Of the areas visited, Teeter feels that Sweden presents the most formidable local competition and Denmark is the country in which his firm expects to obtain the "highest percentage of the available business."

Special batteries for medical electronics were offered by Wilson Greatbatch, of Wilson Greatbatch, Ltd., Clarence, N.Y. Introducing his product through lectures at hospitals in each city visited, he expects to follow up later with direct sales.

Trade Fairs, Centers

Exhibitions Of Dairy, Reprographic, Medical Items Scheduled For Spring

A rapidly growing economy and rising standard of living are spurring Italian demands for dairy products and are widening the market for American makers of dairy processing equipment and supplies.

To help U.S. companies enter or boost their share of this market, an exhibition of dairy processing equipment will be mounted at the U.S. Trade Center on the Milan fairgrounds Apr. 14-25.

The show will coincide with the Milan International Fair which will also be held on the fairgrounds. The Trade Center is located in the same building where the Fair's agricultural exhibits will be displayed. The Milan Fair is an annual event which has exhibitors from as many as 88 countries.

Italy's dairy industry is installing more modern and efficient equipment to raise production capabilities. Total dairy industry investment is estimated at nearly $5 million a year through 1972.

Additional information is available from the Commerce Department, BIC-944, Washington, D.C. (202-967-4508), or from any Commerce Field Office.

Reprographic equipment

Rapid increases in the use of reprographic equipment and systems in France, where total annual sales are now estimated at $165 million, is adding new opportunities to an already attractive market for U.S. manufacturers.

Commerce will help American companies increase their sales to French buyers by staging an exhibition of reprographic equipment in the U.S. Trade Center in Paris May 3-7.

Market research projects a 20 percent annual growth over the next three years for the French microfilm market. Duplicating and photocopy equipment will have a combined annual growth rate of 15 to 20 percent over the same period.

Factors contributing to the rising demand for reprographic equipment include the growth of the French economy, the consolidation of industry, and general modernization of business practices.

Write the Department of Commerce, BIC-942, Washington, D.C. 20230 (202-967-3352), or contact any Commerce field office.

Advanced medical supplies

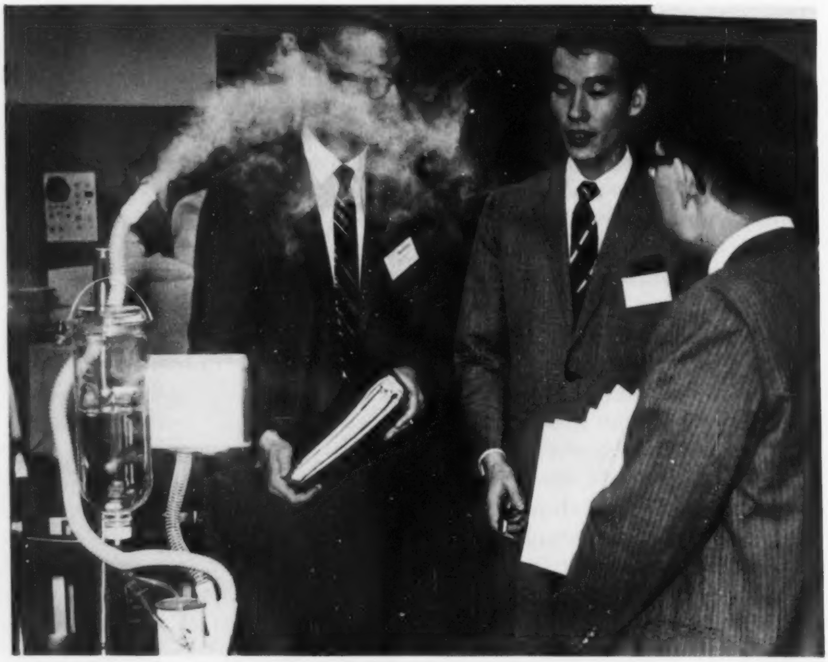
A five-year, $480 million hospital expansion and modernization program planned by the Italian Government to start in 1971 will expand the Italian market for U.S. producers of advanced medical equipment.

American manufacturers will be offered an opportunity to promote their products in the Italian market through an exhibition of advanced medical equipment at the U.S. Trade Center in Milan June 8-12. The exhibition will feature a two-day technical seminar on new developments in the field.

The Italian program is intended primarily to enlarge the existing regional capacity by 40,000 beds, through the construction of approximately 60 to 70 new buildings.

Regional hospitals are required to have at least five percent of their beds equipped for intensive care. Thus equipment will be needed for at least 2,000 new beds and a large number of beds in existing regional hospitals.

More than $41 million will be spent for equipment in the regional facilities expansion and modernization program, a Commerce study estimates. Additional amounts will be spent on advanced equipment for other public units (currently numbering 1,420 with 432,213 beds) and private hospitals (1,049, with



VAPOR-MAKERS IN TOKYO—*Advanced American medical and hospital equipment was demonstrated by 32 companies at the U.S. Trade Center during November. A vapor machine for hospital rooms was shown by the De Vilbiss Co. Next June, a similar display will be mounted in Milan by American medical equipment firms.*

over 96,000 beds). Intensive care equipment will account for a share of the five-year program.

Write the Department of Commerce, BIC-944, Washington, D.C. 20230 (202-967-3968) or contact any Department field office.

Monaco And Munich To Host International '71 Trade Fairs

Three international exhibitions are currently seeking American participation. The Department of Commerce is not planning a major promotion in any of the events.

Monaco's International Sporting Club will host an audio-visual exhibition and symposium Feb. 10-20, coinciding with the 11th International Television Festival in Monte Carlo. Write: GALLIA, 37 rue du Louvre, 75-Paris 2e.

ISPO '71, a four-day sporting equipment fair, will open in Munich Feb. 18. Write: Gerald G. Kallman Associates, 30 Journal Sq., Jersey City, N.J. 07306.

Munich will host the Third Diagnosticas Week May 5-9. All types of modern medical equipment may be displayed; a symposium will accompany the show. Write: German American Chamber of Commerce, 666 Fifth Ave., New York, N.Y.

Medical-Hospital Exhibition Introduces Many New U.S. Products To Japan's Buyers

Advanced American medical-hospital equipment and supplies were displayed before 1,607 Asian businessmen at an exhibition mounted in the U.S. Trade Center at Tokyo. The 32 participants are projecting sales of almost $2 million in combined first year business.

The Oct. 19-24 event closed with one exhibitor negotiating with three possible Far East representatives for his firm. Three U.S. participants in the show had been in the Japanese market for less than six months. Several firms used the promotion to introduce new U.S. products to buyers.

IOWA FIRMS ENTER THAI MARKET—*Sixteen Iowa-based firms joined in a recent agricultural machinery and equipment show at the U.S. Trade Center in Bangkok. Two officials of the Thai Forestry Ministry, right, study a high pressure power washer displayed by a Sioux City firm. A total of 29 exhibitors participated.*

Bangkok Center Hosts Agricultural Show

As part of the "Agricultural Year Project" being promoted in Thailand by the Commerce Department, 29 U.S. exhibitors joined in an exhibition of agricultural machinery and equipment at the U.S. Trade Center in Bangkok.

Sixteen firms were entering the Thai market through the Oct. 13-16 event for which 12-month sales are predicted reaching $342,352. Four representatives were appointed during the promotion and 39 other agreements were under review at its close; 16 companies were interested in contacting Southeast Asian representatives.

A total of 707 visitors registered for the show.

Twelve new to the market-area companies took part in the show which drew 820 businessmen to its aisles. One U.S. firm was negotiating for a licensee. Special activities accompanied the show including a series of technical films.

Technical Exhibition In U.K. Shows Goods Of 46 Firms

Process control and flow automation equipment was displayed at the U.S. Trade Center in London Nov. 9-13. When the promotion closed, the 20 participants showing products of 46 American firms were estimating 12-month orders totaling more than $2.2 million.

HEART OF THE SYSTEM—*The Fisher Equipment analog control center is explained to a British visitor at the November industrial flow automation and process control exhibition in London.*

PROBLEM SOLVING IN SWEDEN—*During a temperature measurement and control equipment show, an agent for Automatic Switch, left, solves a problem for a businessman. The problem involved solenoid and fluidic valves. Addressograph-Multigraph's press, right, operated for businessmen at COPEX '70, the first Commerce-sponsored promotion in Denmark.*

U.S. Temperature Measuring, Control Exhibition In Sweden Shows Products Of 26 Firms

Scandinavian temperature measuring and control experts, 700 in all, visited the booths of 26 American firms at an exhibition at the U.S. Trade Center for Scandinavia at Stockholm.

Participants in the Nov. 17-21 show are estimating more than $2.4 million in first year sales. Six companies were seeking representatives in one or all of the Nordic nations; one was appointed and 11 other candidates were being interviewed at its close.

Research, Inc. of Minneapolis recorded the highest immediate sales during the show—$100,000, and is projecting the most in future orders—$500,000.

Buyers From 20 Nations Visit U.S Show In Denmark

The first Commerce-sponsored promotion in Denmark featured 54 American manufacturers of equipment for the graphic arts and food processing and packaging industries. This all-U.S. show was staged at Copenhagen, Nov. 17-22.

More than 2,900 buyers and importers from 20 nations attended COPEX '70 and purchased over $1 million in equipment on the spot. Twelve-month sales are expected to reach the $7 million level.

Of the 19 companies interested in contacting representatives in Europe, seven completed contracts and 13 firms were negotiating with 116 prospective agents/distributors at the show's end.

Duesseldorf Oceanology Fair Includes 22 U.S. Companies; Four Students Join Congress

Twenty-two U.S. manufacturers of oceanology equipment and instruments joined in an exhibition at Interocean '70, the International Congress and Exhibition for Marine Research and Exploitation in Duesseldorf, Nov. 10-15.

Estimating more than $5.1 million in total first year sales, the participants drew 1,039 to their displays. Agents and distributors were sought by seven companies; three contracts were signed and 64 potential representatives were being interviewed at the show's end.

Seven American speakers, including four students, participated in the Congress. The students, all enrolled in schools of oceanology, were selected competitively throughout the U.S.

SHIPPING, SAILING, SELLING—*Interocean '70 was mounted in Duesseldorf. U.S. Ambassador to Germany Kenneth Rush, left, discusses equipment suspended from the display hall's ceiling.*

Worldwide Business Outlook

East Africans Aim For Big Gains In Seventies

Growth in East Africa as measured in terms of gross domestic product for each partner continues to be uneven, but moderately high. In a report to the Department of Commerce, the U.S. Embassy in Nairobi states that current price GDP for the East African Community registered 8.4 percent growth for 1969, compared with 7.1 percent in 1968, with Uganda showing a remarkably strong surge of 12.5 percent (compared with 4.5 percent in 1968). Kenyan and Tanzanian growth was more moderate, at 7.8 percent and 5.7 percent, respectively. Even assuming price inflation at 2-3 percent per annum for the region, growth in constant terms was still remarkably good.

Ugandan growth was achieved mainly on the strength of record coffee production (practically double that of 1968) and exports as well as a large cotton crop. Kenyan and Tanzanian growth also was largely attributable to strong external demand for agricultural exports, especially coffee, pyrethrum and cotton and, in the case of Kenya, to the continued expansion of earnings from tourism.

This year growth in domestic product for each country continues to depend strongly on external demand for the primary exports of coffee, cotton, pyrethrum, cashews, and sisal—which has thus far held up well; on continuation of production diversification; on enhancement of domestic and external investments which, despite uncertainties over the East African Common Market, continue to enter and fill a needed capital gap; and on continued tourist earnings from abroad. Recent growth in domestic product offers promise, in general terms, for American companies willing to enter or expand their markets in each of the East African countries.

By virtue of enhanced exports, mentioned above, East Africa's negative trade balance with the rest of the world improved in 1969, dropping from U.S.$8.6 million in 1968 to $3.5 million, with Kenya's continued large external deficit countered by improvement in Uganda and Tanzania's position. Intra-Community trade in 1969 continued mixed with Kenyan and Tanzanian exports up slightly and Ugandan exports showing a slight decline.

East African trading patterns with the rest of the world revealed a continued heavy dependence on European markets and sources of supply. Twenty-four percent of the Community's exports were sent to the United Kingdom in both 1968 and 1969 and another 6 percent, in the same years, to West Germany alone. By comparison, the United States absorbed only 12.9 percent of exports in 1969 (12.4 percent in 1968).

U.S. did better

The U.S. share of market in East Africa showed a slight improvement in 1969, increasing from 6 percent to 6.3 percent. The United Kingdom still dominates the East African market, with a 30.6 percent share of total imports. The bulk of U.S. exports is machinery and transport equipment.

The East African Community's Association Agreement with the EEC, signed in September 1969, still remains unratified. The Agreement will permit duty-free entry into Europe of all East African products except coffee, canned pineapples and cloves (for which quotas have been specified) and contains arrangements for reverse preferences which range from 2 to 9 percent on 58 European Common Market products entering the East African Common Market. These preferences discriminate against U.S. products in principle, but East Africans claim that U.S. products which are at present competitive and which would be affected are negligible.

The Community itself was shaken during 1970 by a series of unilateral actions which to some degree have affected confidence and cooperation among the member states. One such measure was announced in Uganda on May 3rd, subjecting all transfers of funds by Uganda to Kenya and Tanzania to exchange control regulations. Tanzanian and Kenyan currency were to be treated as "foreign" exchange and the import and export of Ugandan currency was prohibited. Immediately, the Central Banks of Kenya and Tanzania ordered suspension of exchange of Ugandan notes by their respective banks. It is too early yet to determine whether the trade effects of this restriction will be serious; indications thus far are that trading continues at previous levels.

Also in May, President Obote of Uganda announced that his Government was acquiring a 60 percent share in the equity capital of all oil, insurance and bus companies, banks, the Kilembe Copper Mine and every important plantation and industry, and was as well taking control over all import and export activities. The Ugandan Government also implemented its Trade Licensing Act vigorously, limiting trading to certain locations to citizens, and implemented a new immigration act.

The measure which created the most public criticism in Kenya, however, was announced in mid-July, to the effect that in order to reduce unemployment and the drain on foreign exchange re-

KENYANS PROCESS COFFEE—*All three East African nations have profited from strong external demand for coffee. This operation is in Kenya's highlands. Picture on page 33 shows U.S. tractor on a modern, well-equipped farm, in Kenya.*

serves, all semi-skilled and unskilled jobs held by non-citizens were to be Ugandanized. By October many thousands of Kenyans, Ruandans and Tanzanians are estimated to have left Uganda.

Another indication of divisive forces in the Community was the decentralization of the post office savings banks of Kenya, Uganda and Tanzania. Under the earlier system savings facilities were available to depositors in any post office in East Africa. After July 1, however, the operation of savings banks accounts was restricted to the post offices within the boundaries of the state in which the account was opened.

Tanzania also acts

Tanzania also is systematically and rapidly moving towards state control of the import and export business. The Tanzania State Trading Corporation now is the semi-official agency designed to handle imports and exports and has future plans to take over most of the wholesale distributing system. The STC is also mandated to keep luxury imports to the minimum necessary to support the thriving tourist industry and the small expatriate community in Tanzania.

In Uganda, in the investment field, prospective U.S. manufacturers must assume that any investment would probably be required to be made in conjunction with at least minority government participation, which may subsequently be increased. Moreover, some of the present labor, monetary and trade policies mentioned above which have been applied in the Community, and especially between Uganda and her partners, could deter the establishment of local industries geared toward regional markets. This is an important element for American investors wishing to export capital and know-how to any of the East African states with the hope of later expanding sales on a regional market basis.

Nonetheless, American manufacturers of specialized machinery should find a market for these capital goods in East Africa.

The Community continues to function best in terms of administration of regional utilities, carried over since 1948 during the colonial administration. These shared services are for telecommunications, rail, air transport, ports management, customs, and income tax services. The East African Authority itself, which consists of Presidents Kenyatta, Nyerere and Obote, in October 1970 decided to rotate the portfolios of East African Ministries in accordance with the 1967 Treaty for East African Corporation, hoping thereby to improve efficiency and increase cooperation. Also, as in the past, development plans have been prepared which cover the improvement of infrastructure and its expansion, and international lending agencies have been active.

Within each country development plans have been prepared or are in preparation which will continue to offer continued opportunities for American trade and investment. In Kenya, the 1970/74 Development Plan provides for increased investment in rural development, aiming at minimizing rural unemployment and under employment. Also, in industry alone an estimated $280 million of investment is projected, to be provided mainly by the public sector for increased manufacturing output. This effort will involve massive imports of capital goods in line with the Government's policy of expanding existing factories such as meat, grain and millet, canning, sugar, beer and textiles.

Enlargement of the airport at Nairobi is expected to begin in the next several years and some improvements at Mombasa airport have already begun for movement of Boeing 747 "jumbo jets" for 1971. At Mombasa Harbor in Kenya, tenders are expected to be issued soon for the second phase of berth building, including dredging.

In Uganda, the Export and Import Co., established in June, is now responsible for foreign trade activities (although its authority does not extend to other governments and public bodies). The Corporation has temporarily appointed as its agents all private importers, who are now required to have an import license for most goods and to pay the Company a one percent commission on their value.

The time, therefore, appears right to penetrate the traditional British and European import hold in Uganda, and U.S. suppliers and manufacturers are advised to approach the Company and other public bodies with their proposals.

Plan is on target

In Tanzania the outlook for the second Five-Year Plan, with its emphasis on rural development and education, appears good and on target as the program moves into its second year. The country has demonstrated the seriousness of its approach to development by generating an internal capital formation rate of well over 20 percent during the past two years. American businessmen seeking trade opportunities should check initially with the State Trading Corporation.

American producers of special and distinctive products will continue to find a market in this country, but more generalized exporters will face strong competition from low cost producers. Although luxury imports will be kept down, American manufacturers of specialized machines, particularly in the intermediate capital goods field, should find a market for their products here. In addition, the National Development Corporation, a semi-official state organization designed to promote industrial development, is anxious to attract joint ventures in a number of projects, and the Tanganyika Development Corporation, another semi-official organization, can be helpful to American firms in offering counsel and finance for commercial investment within Tanzania.

Japan Still Rolling Along Despite Credit Restraints

Japan's economic expansion rolls on month after month but with a new tone of moderation and a mood of doubt, at least in certain key heavy industries.

While most sectors of the economy continue on the very strong upward trend that has been sustained without pause since the winter of 1965, output in some industries, particularly steel, automobiles, petrochemicals, electrical machinery and textiles is leveling off or easing gradually downward. Real economic growth might fade to 10 percent in fiscal year 1971 (ending March 1972) from the 11 percent rate expected in the current fiscal year.

That's the economic situation in Japan as reported to the Department of Commerce by the U.S. Embassy in Tokyo. The Embassy goes on to state that the Japanese economy has entered a period of adjustment which probably will last about six months. This adjustment is in response to: (1) cumulative effects of the tight monetary policy which has now ended; (2) the waning of the investment boom of the past three years; and (3) expectations of reduced demand for Japanese exports. Those three primary forces are now resulting in adjustments in the level of production. The purpose of the correction will be to harmonize the economy around a performance level somewhat below the extremely high levels recorded over the last three years.

The Bank of Japan switched to an easier monetary policy on Oct. 28, 14 months after its adoption of a credit squeeze. The reduction in the bank rate to 6 percent from 6.25 percent, plus the significant easing on banks' new loans and advances to customers reflect the Bank of Japan's judgment that cooling-off of the economy has been achieved.

Money and credit conditions will continue to be easier over the next six months, but deferred payments of enterprises atop low cash positions will take several months to wear off. Fiscal policy is easing measurably in contrast to the first half of the fiscal year. The tone of fiscal policy continues to be officially described as "neutral," but it is widely anticipated that the Government will increase public capital expenditures next year.

Investment boom may slow

This year new plant and equipment investment has registered large increases over last year, although by mid-year it became evident that investment plans were being increasingly hampered by credit restraints. The Industrial Bank of Japan has estimated that investment for the first half of FY 1970 increased 27.3 percent over the same period last year on a construction basis. The highly regarded investment survey by the same bank, however, projects an increase of only 12.4 percent for the second half of the year.

Consumer demand remained very strong throughout the summer, but now shows signs of easing.

Rising costs, partly reflected in the emerging gap between wage rates and labor productivity, have caused corporate profits to increase at a much slower pace than recorded for the last five consecutive years. Post-tax profits of reporting corporations for the six months ending September increased only 2.1 percent over the previous six-month period.

The sharp upturn in wholesale prices last year was an important factor behind the Bank of Japan's resort to tighter monetary policy. That trend of larger price in-

U.S.-JAPAN MEETING—*Some 88 Japanese business leaders attended this recent Washington State International Trade Fair Seminar in Kobe, Japan. Organizers expect more events of this type as a result of its success in furthering commercial ties.*

creases has now all but been eliminated.

The export price index continued to rise at a decreasing rate throughout the summer months; then in August, after rising for 25 consecutive months, the index fell 0.3 percent. A similar decline was recorded in September and October. The import price index, having risen in the early part of the year, has eased back down again and is very close to its level at the beginning of 1970.

The rate of growth of Japan's exports is expected to slow appreciably in coming months. Total Japanese exports next year are expected to increase at a rate around 14 to 17 percent, well below the current rate of over 20 percent.

Moderation in the domestic economy also will slow down Japan's requirements for imports, more or less in line with the slower growth of exports. As a result, the trade account will remain in surplus, although possibly by a somewhat smaller amount than this year's $4 billion figure. Since other accounts in the balance of payments are expected to continue along present trends, Japan probably will retain an overall payments surplus on the order of $1 billion next year.

A trend toward a rising growth rate of Japanese imports from the United States and diminishing growth rate of Japanese exports to the United States, first visible in the latter half of 1969, has continued this year. On the basis of Japanese figures for the first nine months of 1970, Japanese imports from the United States are up 41.4 percent while Japanese exports to the United States have risen 18.8 percent. As a consequence, it appears that Japan's balance of trade surplus with the United States will decrease from $1.6 billion in 1969 to around $1.0 billion in 1970, on a payments basis.

New trade phase

Japan's exports to the United States may be entering a phase marked by a settling-down of Japanese product sales in the wake of initial market penetration and capture of a given market share by many new Japanese products which have appeared in U.S. markets in recent years. Moreover, the United States can be expected to regain some competitive advantage vis-a-vis Japan on the assumption that U.S. inflationary pressures are brought under control.

The projected slowdown in new plant and equipment investment probably will make it difficult to increase U.S. sales to Japan of capital goods, and industrial supplies and material.

Thus, present trends point toward a more moderate rate of growth of trade between Japan and the United States, at least through mid-1971, and continuation of a U.S. trade deficit with Japan of about $1 billion in 1971.

The widely heralded Third Round of capital liberalization, effective Sept. 1, added 323 more trades and industries to the list open for foreign investment. The total liberalized to date is 524.

Impressive as that number of liberalized industries is, the Third Round liberalization leaves much room for qualitative improvement. Of the 524 industries open to foreign investment, only 77 are open for 100 percent foreign equity ownership; the remaining 447 industries are open only up to 50 percent foreign ownership. The capital liberalization, moreover, applies only to new ventures.

Other recent capital and trade liberalization developments include:

► The ceiling on Japanese foreign direct investment subject to automatic approval by the Bank of Japan has been raised to $1.0 million per case. The former ceiling was $300,000 per case.

► The ceiling on foreign acquisition of shares in already existing non-restricted companies has been increased from 20 percent to, but not including, 25 percent.

► Restrictions have been removed on the amount and periods of loans and guarantees which overseas offices of the Japanese exchange banks are permitted to extend.

► Capital liberalization of the automobile industry is reportedly to be advanced to spring 1971, although no specific date has been announced as yet.

► The Government has agreed to advance the fourth round of capital liberalization by about six months to autumn 1971.

► The Government plans to reduce items controlled by import quotas from the Sept. 1 level of 90 to less than 40 by October 1971.

Israel's Growing Economy Requires High Import Rate

Israel's economy continues to show strength, and prospects for U.S. exports to Israel remain good. The most favorable areas include: (a) goods and services that will improve Israel's export position, including tourist development; (b) products strong in technological content; and (c) imports that will improve internal and international transport and communications.

John P. (Basil) Wentworth, Commercial Attache at the U.S. Embassy in Tel Aviv, has reported to the Department of Commerce that the United States continues to be Israel's principal supplier, with total sales during the first nine months of 1970, excluding military sales, amounting to over $240 million.

The Government of Israel has shown increasing concern over the country's persistently adverse balance of payments, and selective measures have been taken to discourage imports. Drastic import reduction is unlikely, however, for two reasons. First, Israel is not well endowed with natural resources, and relies strongly on outside suppliers both for its own needs and for the raw materials that go into many of its exports. Second, Israel hopes to attract a continuing inflow of immigrants; to do so, it must offer a comfortable standard of living—which still depends largely on imports.

Faced with this unavoidable import bill, Israel wants urgently to increase exports. At the same time, there is a strong desire for as large a measure of national self-sufficiency as possible, as much for strategic reasons as for reasons of national pride. A third factor influencing the pattern of Israel's imports is the desire to use the country's pool of technically trained manpower with maximum efficiency, while exploiting every opportunity for upgrading their skills.

American exporters to Israel should bear in mind the high degree of technical sophistication to be found there. Israeli engineers are able to use properly the most advanced production equipment, subject to the limitation of the short production runs imposed by the country's relatively small market.

American exporters can also profit from another characteristic of Israeli buyers—the willingness to pay a premium price for proven superior quality. Particularly in the field of capital goods, the Israeli purchaser typically makes a searching evaluation of all factors affecting the real cost of a projected purchase, taking into account such characteristics as frequency-of-repair, expected life, and quantity and quality of output. This sophistication on the part of Israeli buyers has two implications for the American exporter: first, quality goods are not excluded from the Israeli market for the sole reason of high price, and secondly, the exporter's sales approach should incorporate a complete analysis of his product's strong points, including those concepts which can be appreciated only by the sophisticated buyer.

An increasing number of American firms are exploring the possibilities of exporting through Israel, as well as exporting to Israel. By combining American and Israeli components and know-how in a "made in Israel" package, they are often able to enter markets that would otherwise be either inaccessible or uneconomical. One reason for the success of this technique is the saving in freight costs when products are shipped to nearby countries in Europe, Asia, and eastern Africa; a second is the fact that some smaller and younger countries, while apprehensive about dealing with a giant like the United States, regard Israel as a partner with whom they can trade on more equal terms. An outstanding example of success along this line is the recent sale of Israeli-assembled American automotive equipment to eastern Africa. Another promising example is a subsidiary established in Israel by an American engineering firm to provide design and consulting services primarily to less-developed countries.

EXPORT BASE IN ISRAEL—*Electronic Industries Ltd., above, has substantial U.S. investment. Products made in Israel have advantages in some markets.*

The United States will sponsor a pavilion in the 1971 Tel Aviv International Trade Fair, June 8-15, 1971. Styled "Technology 71", the Fair will operate this year on a strictly business-like basis. No consumer goods will be displayed, and the emphasis among exhibits will be on equipment and materials incorporating or exemplifying a high degree of technology.

Specific fields that look unusually attractive to American exporters are: metal working machinery and tools; scientific, electronic, and chemical equipment; hotel furnishings and equipment; materials and machinery to improve packaging and moving of goods, particularly of exports; and machinery to upgrade the performance of the country's ports and airport.

Argentina's New Government Sets Ambitious Goals

Argentina's economy reacted with caution to the change of Government in June and Cabinet changes in October. As a result, activity slowed in the last part of 1970, and a GNP growth rate of 5.2 percent is now projected for the year as compared with the 6.9 percent figure registered in 1969.

The U.S. Embassy in Buenos Aires has informed the Department of Commerce that Argentina's new Minister of Economy has announced an ambitious program to achieve an 8 percent rate of economic growth, mainly by significantly increasing the rate of both private and public investment. In the public sector, the Government plans to undertake a large public works program and to direct a greater part of its purchases of goods and services to Argentine rather than foreign suppliers. In the private sector, the Government plans to increase credit and assure domestic producers a market freer from foreign competition.

Several measures have already been put into effect, notably, higher tariffs on certain luxury goods and an increase in credit available for domestically-owned enterprises. Most measures, however, are still in the drafting stage. These include legislation for a public sector "buy Argentine" policy, a National Development Bank to mobilize private savings, a Bank for Foreign Trade to provide export financing facilities, and special financial assistance to problem industries such as textiles and meat packing.

A factor of importance in this new program is the reduced emphasis given to price stability. Inflation, which is expected to reach approximately 20 percent in 1970, could run at an even greater rate in 1971. This might impede the government's program by making domestic lenders less willing to commit funds beyond short-term. Foreign borrowing conditions, however, are supported by high Central Bank reserves and a good 1970 balance of payments position (positive by U.S. $297 million for the first nine months).

The new Government has stated quite explicitly that Argentina will continue to welcome foreign private investment, which it regards as one of the important ways in which the high level of investment necessary for an 8 percent growth rate can be achieved.

On the other hand, there are clear indications that the government's attitude toward foreign private investment will be somewhat more selective than in the past. Furthermore, the Government is encouraging the establishment of Argentine-owned rather than foreign-owned firms in some sectors of the economy.

Exports will probably come very close to achieving the government's 1970 goal of $1.8 billion, although there may be a slight shortfall because of the drastic reduction in beef exports beginning in October. The export outlook for 1971 is less clear although the Government has set a goal of $2.0 billion.

Imports were down

Imports, which declined by 2.5 percent from the high 1969 rate during the first nine months of the year, will almost certainly end the year well below official estimates, particularly in machinery. This decrease is due to a considerable extent to special factors, such as the devaluation in June from 3.5 to 4.0 pesos to the dollar and the subsequent delayed downward revision of import tariffs. In addition, the exchange controls imposed in October, although progressively relaxed during November, also deterred imports and placement of orders for new deliveries.

Imports during 1971 will probably be considerably influenced by the new economic policy. Foreign purchases could be dampened if the Government moves forward rapidly with its program to provide Argentine producers with more protection from foreign competition.

On the other hand, the level of economic activity necessary to approach the 8 percent increase in growth sought by the Government would require a significant import contribution. In addition, if inflation runs at a very high rate, there will be strong incentive for building up stocks of imported goods.

Exchange controls were established in mid-October to prevent speculative movements against the peso; the main controls remaining are to inhibit capital flight.

The near-term expectation for exchange controls is that legitimate trade and capital movements will be permitted, while restraints will continue to be applied against possible capital flight. The exchange rate for legitimate transactions has been held to the four pesos to the dollar level set in June, 1970. The Central Bank's reserve position is quite strong. The implication of this is that, at least in the short-term, economic policy will not be forced to give priority to reserves.

Liquidity in the commercial sector is limited. A reduced rate of credit usage, along with a moderate expansion of money supply in the first nine months, resulted in slightly lower interest rates. However, an accelerated rate of inflation in the second half has increased caution among lenders, and interest rates are beginning to move upward from the 21-23 percent level.

In general, the trend for the immediate future is for a more relaxed money supply and greater availability of credit. Interest rates will climb, however, in response to inflationary trends, so that relaxed credit conditions will not be directly reflected in interest rates.

Finnish Boom Continues But Some Slowdown Is Expected Next Year

The boom conditions of 1969 in Finland have continued into 1970, reports the U.S. Embassy in Helsinki, with only a slight moderation in many sectors of the economy. The gross national product for 1970 is expected to show a year's increase of 6.5 percent in real terms. There is evidence, however, of overheating in the economy, and bottlenecks in industrial capacity and manpower shortages are continuing. At the same time, Finland's imports are rising rapidly, creating a trade deficit now estimated as likely to approach $238 million for the year.

The Embassy has informed the Department of Commerce that prospects for 1971 are clouded but the estimate by the Government for a GNP increase of 5 percent in real terms appears reasonable.

Wages and prices have remained relatively stable and unemployment has declined to 2.1 percent. The wage and price stability has been due to the stabilization agreement under which increases have been limited. The cost of living index for January-September, 1970, rose by only 2.8 percent and wholesale prices by 4.8 percent. Wages have not changed greatly but longer working hours and shifts from less productive to more productive sectors of the economy, combined with the high level of employment have increased wage payments by 10 percent during the first three quarters.

Finland registered a trade deficit in every month of 1970, largely because imports have tended to rise more rapidly than anticipated. Through September, the deficit in trade was $163 million. The current account deficit for January-September of $197 million, even with improved tourist expenditure and shipping receipts, has contributed to the concern over recent developments.

Steps taken by the Bank of Finland to dampen demand and thus discourage imports include: tightening of installment purchase requirements in July; a 20 percent cutback in loans and installment purchase financing by commercial banks; and restrictions on the use of import credits for the purchase of certain categories of commodities, largely consumer durables.

Output keeps rising

During the first three quarters of 1970, industrial production increased by about 10 percent, only slightly less than the growth rate achieved in 1969, a boom year. Though faced with capacity limitations and manpower shortages, nearly all sectors of the industry increased output. The electro-technical and chemical sectors of industry led the output rise, with gains of 21.3 and 15.7 percent, respectively, through August. The overall output rise was stimulated primarily by export gains, and to a lesser degree by private domestic investment, which grew by 15 percent during the first three quarters, and rising consumer expenditures.

Construction activity was also brisk. For the first half, building completions were 16.1 percent higher and building starts some 29.2 percent higher than for the same period last year. Residential housing construction is expected to total 45,000 units for the year, a new high.

For January-September, exports totaled $1,669 million and imports $1,832 million. These figures are 18.8 and 29.1 percent, respectively, higher than for the same period last year.

Finland's trade with countries of the EEC and EFTA has continued to increase; these areas now account for 70 percent of Finland's total exports and nearly 75 percent of total imports. Trade with East bloc countries, in contrast, has tended to decline in relative importance. For the January-September period, comparing 1970 with 1969, imports from the bloc declined from 16.6 to 16.1 percent and exports dropped from 18.0 to 15.6 percent. The USSR accounted for

FINNS DO THEIR SHOPPING—*Helsinki's south harbor is locale for the city's open market place. The square teems with activity, especially during the tourist season.*

12.5 percent of Finnish imports and 11.7 percent of Finnish exports.

The U.S. share of Finnish trade has also declined. For example, the U.S. sales of $81 million through August comprised 4.6 percent of Finnish imports, and U.S. purchases of $85 million made up 4.8 percent of Finnish exports. Comparable figures for the previous year were 5.4 and 6.3 percent, respectively.

Finland's principal trading partners in order of trade value were: for imports, West Germany, Sweden, the United Kingdom and the Soviet Union; and for exports, the United Kingdom, Sweden, the Soviet Union and West Germany. In total trade, Sweden has replaced the United Kingdom as Finland's largest single trading partner.

The key elements in the incomes policy negotiations are: wage negotiations between employers and employees; rent control measures; continuation of price controls; and decisions affecting funds in the anticyclical fund.

There is general agreement on the part of government, industry and labor that the stabilization measures of the past three years have contributed importantly to maintaining economic stability and permitting balanced growth.

The struggle for labor union leadership is creating uncertainties regarding the ability of labor groups to bargain constructively and meaningfully with employer groups. The outcome of these negotiations will determine the extent to which prices and wages in Finland will go up next year. It is quite obvious already, however, that there will be a significant increase in wages; price controls will be much more selective and the price stability of the past several years probably will not be possible in 1971. Some increases, both in wages and prices, however, do not overly worry the policy makers because prices in many Finnish export markets have gone up at a much more rapid rate.

Although efforts at Nordic economic cooperation (NORDEC) were suspended in March, 1970, Finland is now faced with an even more important problem affecting its economic future. The EFTA countries, which have recently begun talks with the EEC, are important markets and sources of imports for Finland. If the EFTA countries are to become full or associate members of the EEC at some future date, Finland must find a suitable accommodation with the enlarged EEC which will protect Finland's competitive position in that market. These countries (EEC-EFTA) account for 70-75 percent of Finland's world trade. Finland has already indicated publicly that it will not seek either associate or full membership in the EEC but that it will seek to negotiate a commercial agreement.

U.S. trade with Finland is at a modest level but exports during the first nine months, totaling $85 million, were running at a rate 11 percent higher than for the same period last year; moreover, the United States had a small surplus in trade with Finland, reversing the $12.8 million deficit of 1969.

Finland is now experiencing a consumption boom; through August, imports of consumer goods were up by 13 percent. Household durables and passenger automobile imports have contributed importantly to this increase. Investment goods continue to be in strong demand, although restrictive monetary measures have required many industries to delay investments. The interest in pollution control equipment is growing, and there is need for expanding energy resources. There are plans to strengthen the infrastructure by building new roads and expanding railroad rolling equipment, and Finnair is planning to build up its airfield facilities. The petrochemicals industry is in the beginning stage and prospects for the future appear favorable. Finnish shortages of iron and steel products have also provided markets for U.S. exports this year.

U.S. Embassies In Seven Countries Analyze Economic, Business Outlook

Following are brief indicators taken from Foreign Economic Trends recently received by the Department of Commerce from the U.S. Embassies in seven countries. Over 150 such reports for 117 foreign markets, ranging from 4 to 12 pages each, are received yearly.

Annual subscriptions to the Foreign Economic Trends series may be obtained for $15 from any Commerce Field Office or Supt. of Documents, Government Printing Office, Washington, D.C. 20402.

In **Iran**, the economy continues to grow at an impressive pace with gross national product at constant prices again expected to show an approximate 8 percent increase in the next half-year period. Restrictive monetary policies in the first three quarters of 1970 successfully dampened inflationary pressures but also resulted in some slackening of economic activity, particularly private sector investment and construction. These trends continued into the last quarter.

Increased development spending, however, should bring about a new spurt of economic growth in Iran during 1971. Another fillip to the economy will be a recently negotiated increase in oil sector revenues, income which should ease the Iranian Government's requirements for substantial inputs of foreign credits.

India's economic growth is being sustained at high levels during Indian fiscal year 1970-71 (ending

March 1971), the second year of the nation's Fourth Five-Year Plan. During 1971 the United States is expected to continue to be India's leading supplier. The decline of approximately 20 percent in imports from the United States during 1969-70 was due to reduced AID-financed imports as well as continued emphasis by India on import substitution and trade with East European countries. During 1970-71 the level of U.S. exports, dependent to a considerable extent on the level of direct governmental assistance extended to India by the United States and other countries, may increase moderately. The United States is also expected to continue to be India's primary source of new private foreign equity investment.

Pakistan is embarking on its Fourth Five-Year Plan, the main goals of which can be expected to be the framework for development during the next five years. The following implications for U.S. business in Pakistan during that period have become evident:

- The need for concessional food sales will continue.
- Other commodity exports will be related to U.S. aid levels.
- Demand for capital goods and Eximbank financing should continue.
- A fair potential for U.S. equity investments exists in both East and West Pakistan.
- Prospective sales of consumer goods are limited, but open to competitive suppliers.

Lebanon's economy has been shaken by a series of domestic and Middle East regional crises. Although the economy registered moderate growth in 1969, 1970 will show little overall growth. However, the election this year of a strong president and the formation of a new cabinet of technicians bodes well for the future. The new Lebanese Government has stated its intention to make greater use of fiscal and monetary policy to enhance economic development. At the same time, the Government has emphasized stability, in order to create a good business climate necessary to get the economy moving again and encourage more investment in the country from abroad.

In **Liberia,** the outlook for continued substantial growth of the economy is favorable, but depressed international markets for rubber, timber and diamonds will have a dampening effect on the rate of growth in the short run. In the longer term, increases in iron ore and rubber production, new light industries and agricultural processing plants and the possible exploitation of newly discovered resources are expected to contribute to further expansion.

A continued significant rate of Liberian economic growth is expected for 1971. The discovery of offshore oil or the opening of new ore deposits would, of course, make Liberia's growth prospects even more favorable.

Panama is expanding rapidly but future sustained growth will depend on success in increasing private investment. The current high level of activity presents opportunities for trade and investment which are not being fully utilized by U.S. businessmen. Capital equipment and semi-processed goods are in growing demand. Panama already imports large numbers of consumer items, and the consumer durables market is rapidly expanding.

Over the longer run, Panama's tourist, extractive, and agro-businesses, in addition to all types of consumer products, show the most promise for sustained growth in trade and investment opportunities. As markets expand and import costs rise, local output of consumer items for both internal consumption and export will expand. U.S. firms established in the area should be able to take advantage of such opportunities.

LIBERIA LOADS ORE—*Growing iron ore output from the LAMCO mine at Nimba is one reason that another good year is predicted for the economy in '71.*

In **Honduras,** the economy will end 1970 with a real gross national product increase of approximately 4.5 percent. Although slightly higher than the 1969 growth rate, the increase is still lower than the rate for pre-1969. The budget and balance of payments deficits of 1970 are sources of concern.

Honduran trade with the United States has increased and as Government-developed plans and programs in many different fields are carried out U.S. exporters will have the opportunity to participate in supplying materials for these projects. Although per capita GNP is still small, the Honduran consumer is developing a demand for many of the consumer items widely used in the United States. U.S. exporters, however, will face increasing competition from Japanese and Western European firms.

World Trade Actions

France Aligns Oil Policy; British Ease Coal Controls

France: The budget approved on Nov. 18 by the National Assembly indicates renewed emphasis on research and development. Government support for non-military research will increase 11.6 percent to a total of $921 million, while total government spending will be held to a rise of 8.5 percent, not including lending operations.

While prestige programs have been dropped or allowed to run down, there have been sharp increases in funds for applied research, especially in areas promising relatively short-term payoffs.

Areas of special U.S. interest which will benefit from substantial budgetary increases include: (1) the space program, which will experience a 22 percent rise from $108.7 million to $132.7 million in 1971; (2) the computer program, up 30 percent from $33.7 million to $43.9 million; (3) oceanography, up 27 percent from $12.8 million to $16.3 million; and (4) housing and transportation, a gain of 27 percent from $12.1 million to $15.4 million. These figures do not take into account the effects of inflation on costs in 1971.

French spending for military and industrial research in 1970 totaled $2.7 billion, approximately 2.2 percent of the gross national product. Current guidelines are keyed to a target of 2.7 percent by 1975, and the present budget gives new impetus toward that objective.

France: Strict controls over the petroleum industry were recently revised in order to make them more compatible with the future Common Energy Policy of the European Community.

The *Journal Officiel* of Sept. 24 published a series of modifications to the French petroleum regime that had been recommended by the EC Commission last December. Whereas franc zone crude (e.g., from Algeria) has been heretofore considered outside quota, it now will be under a quota system, as is crude from countries outside the zone. The practical change, however, will be minimal, as the franc zone crude will be given the largest quota allocations and companies operating in France still will be obliged to purchase it.

A second modification requires that 90 percent of all refined products sold on the French market come from European Community refineries. Previously 90 percent of refined products sold in France had to be processed in French refineries. Trade sources expect that this change will have little effect on trade, as the existing French refining capacity and distribution arrangements will sustain the competitiveness of domestically refined products in the French market.

The French text of the Sept. 24 decrees is available on a loan basis from Europe Division, Office of International Commercial Relations, BIC-888, Department of Commerce, Washington, D.C. 20230.

United Kingdom: The Government lifted the long-time embargo on coal, coke and other solid fuels imports on Dec. 5. Imports of coal are now permitted under an open general license.

The lifting of the import ban is the result of concern about the low supply of these fuels, and that a severe winter could result in a drop in the generation of electricity and a shortage of solid smokeless fuel for domestic heating. The low supply situation was recently aggravated by walkouts in the coal mines. The British Steel Corporation and the National Coal Board had been seeking relief from the embargo which would allow them to import low volatile coking coal.

Peru: Effective Nov. 4, Peruvian Decree Law 18463 permits the importation of taximeters free from import duties. However, the meters will be subject to the payment of the 1.5 percent *ad valorem* tax imposed on duty-free items, the 4 percent tax on ocean freight charges and the normal port handling fees. Such imports will be allowed only to professional taxi driver unions and will be subject to a quality certificate, the approval of which by the Peruvian Ministry of Industry and Commerce is necessary prior to importation.

Commerce's Scott To Speak At Session On Latin America

Harold B. Scott, Deputy Assistant Secretary of Commerce, will be joining in the discussions at an American Management Association briefing on "The Changing Latin-American Business Environment—Developments in Key Countries" to be held Jan. 26-27 at New York's Americana Hotel.

Scott will join prominent speakers from Latin America and the United States representing business and government on the program.

Write: American Management Association, Inc., 135 W. 50th St., New York, N.Y. 10020.

International Pension Plans, Insurance To Be Studied

The American Management Association has scheduled two January briefing sessions in the area of international business. Both will be held at AMA's New York headquarters from Jan. 11-13.

For information on "International Employee Benefit and Pension Management" and "International Corporate Insurance Management," **write:** American Management Association, AMA Building, 135 West 50th St., New York, N.Y. 10020.

Eximbank Helps European Airline Consortium Buy Planes From U.S.

In a major financing move during 1970, the Export-Import Bank of the United States announced three credits totaling almost $79 million to KLM Royal Dutch Airlines, Swissair Transport Company, and Union de Transports Aeriens (UTA) of France.

These airlines are three of the four members of the KSSU Consortium Group formed in January of 1969 to effect "technical and operational cooperation for the operation of new types of aircraft." KLM, Swissair and SAS were the three original members and UTA joined the group in June 1969.

The partners agreed to order Boeing 747 aircraft according to jointly drawn specifications and also reached agreement on distribution of maintenance responsibilities and flight training.

Under the terms of the contract, KLM is to conduct ongoing maintenance of the partners' Boeing 747 aircraft, while SAS conducts maintenance of the engines of these aircraft. Swissair will conduct maintenance of KLM's DC-9s. Swissair previously agreed to overhaul KLM's DC-9 engines. KLM overhauls DC-8 engines for Swissair.

Flight training for the 747 is conducted in a flight simulator owned 50 percent by KLM and 25 percent each by SAS and Swissair. The flight simulator has been installed in a new instruction building in Schiphol Airport, Amsterdam. The partners further agreed that when other new aircraft are required the parties will again cooperate and conclude agreements on maintenance support.

Therefore, in June 1969, in the same cooperative manner, a choice of a tri-jet aircraft was made. KSSU chose the DC-10-30 for further modernization and augmentation of their fleets. For this aircraft, major maintenance was allocated between the partners: Swissair to service airframes, KLM to service engines; UTA will also be similarly engaged.

The loans were extended by Eximbank to help finance the purchase of 14 DC-10 jet aircraft, related equipment and services for the three airlines, six each for KLM and Swissair, and two for UTA. The total cost of the purchases will be some $329 million. Delivery of the aircraft is scheduled for March to April, 1973.

Each of the borrowers will make a cash payment of 18.5 percent of the contract price of the planes it buys. The remaining financial requirements will be extended by the McDonnell-Douglas Corp., General Electric, and other U.S. and foreign lenders.

In a further action to help finance sales of U.S. jet aircraft, related spare parts, engines, equipment, and services totaling $20.7 million to **Yugoslavia**, the Eximbank authorized two credits totaling more than $8.3 million.

One loan is for $6.2 million in favor of Jugoslovenski Aerotransport (JAT) of Belgrade, and will help finance the purchase of three DC-9 jets with related goods and services costing $15.4 million. The second loan, of $2.1 million to Interexport of Belgrade, will help finance the purchase of one DC-9 jet with related goods and services costing $5.2 million.

Helps private bank

To support $133.3 million in U.S. export sales, the Export-Import Bank of the United States has made $60 million available under its Cooperative Financing Facility to the First National City Bank of New York. City Bank has long been a leader in international banking and in 1914 became the first U.S. national bank to establish an overseas branch.

Eximbank Chairman Henry Kearns said that the bank will use the funds to make loans to small and medium-sized borrowers abroad to purchase U.S. goods and services through its foreign branches, subsidiaries, affiliates, and correspondent banks. These loans will be negotiated by on a case-by-case basis. The bank will repay Eximbank's portion of each jointly-financed transaction.

Proceeds of Eximbank's $60 million under the Facility will finance 45 percent of the cost of each purchase from the United States, while the New York bank will finance the other 45 percent after the buyer has made a cash payment of 10 percent.

Generally, repayment terms on each Eximbank credit will be in accordance with terms customary in international trade for the export sale transaction being financed, but in no event longer than five years. Interest on Eximbank's portion of each transaction will be at the rate of 6 percent per annum on outstanding balances.

Other actions

Other recent lending activity of the Eximbank has included:

- Australia—Making $5 million available under its Cooperative Financing Facility to a partially U.S.-owned finance unit which will relend the funds to small and medium-sized borrowers to help pay for $11.1 million in imports from the United States;
- Australia—A loan and financial guarantee to cover the entire $11.3 million purchase price of U.S. goods and services for expansion of the Hamersley Iron mining complex.
- Brazil—A loan and financial guarantee to cover 80 percent of the cost of $1.1 million in imported U.S. goods needed for a privately-owned sulfonation detergent plant;
- Spain—A $7.32 million credit to help a power plant buy $12.2 million worth of U.S. equipment.

Eximbank's loans will be repaid in semiannual installments. Interest on outstanding balances will be at the annual rate of 6 percent.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine. The section that follows, incorporating the familiar Licensing and Investment Opportunities and Foreign Trade Opportunities, presents details about licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies, appoint agents, major construction and expansion projects, and U.S. visits by foreign buyers.

Licensing, Investment Abroad

0810—MALAGASY REPUBLIC—Seeks U.S. capital to finance several **reforestation projects.** Soil surveys of potential reforestation zones completed. Most interesting areas located near rail link between Tananarive and Tamatave, country's principal port. Government hopes to promote construction of pulp mill to use locally produced wood fiber. Write: Commercial Attache, American Embassy, Tananarive, Malagasy Republic, or Georges Ramanantsoavina, Directeur des Eaux et Forets, Boite Postale 243, Behoririka, Tananarive. P-70976

1511—MOROCCO—Partner to **construct low and medium-cost housing.** Modern construction methods should provide better housing, both single family residences and apartments, for Moroccans. Prefabricated will be considered. Abdelouahed Belhaj, Mgr., Casablanca Branch, Banque du Maroc, Casablanca. P-70989

2530—SWITZERLAND—Licenses to make **school and kindergarten furniture, public building furniture and drawing tables.** Firm produces metal and tubular steel furniture; employs about 60. Customers include local government offices, Swiss schools and the Post Office. Marc Bouille, Dir., Zesar SA, P.O. Box 25, 2501 Bienne, Switzerland. WTD. P-70975

2752—AUSTRIA—Large printing and publishing firm seeks copyright agreement, limited to Austria only, involving supply of **offset color lithographs (films) for four-color prints of post cards** with Christmas, Easter and floral themes. U.S. has only token involvement in Austrian import market of $782,000. Firm prints exclusively in the German cut size 105 by 148 millimeters. Principal attends Frankfurt Trade Fairs and suggests meeting there. Wilhelm Janu, Nobilegasse 49, A-1150 Vienna. WTD. P-70710

2800—HONG KONG—Joint ventures to produce **cosmetics and pharmaceuticals.** U.S. partner would provide technical assistance and necessary licenses. Hong Kong firm prepared to make capital investment; degree of equity participation open to negotiation. M. B. Murjani, Man. Dir., Murjani Industries Ltd., P.O. Box 1841, 52 Wing Kwong St., Hunghom, Kowloon, Hong Kong. WTD. P-70721

2834—GERMANY—Firm seeks cross-licensing agreement for production of **antimycotics.** Third largest producer of pharmaceuticals in Berlin. Employs 130. Carl L. Eberlein, Dr. Gerhard Mann, Chem.-Pharm. Fabrik GmbH, 165-173 Brunsbutteler Damm, 1 Berlin 20. WTD. P-70982

3079—FINLAND—License sought for manufacture of **plastic cutlery and sanitary articles.** Interested in distribution rights for European (primarily EFTA) countries or Scandinavian countries including Finland. Present equipment includes blow moulding and injection moulding machines. Company established in 1955, employs 90. Olof Geelnard, Man. Dir., Plasto Kb., P.O. Box 14, Mariehamn, Aland, Finland. WTD. P-70979

3079—SWITZERLAND—Licenses to make **semi-finished plastic products.** Interests include **packaging materials, foils, film and plates.** Products should be suitable for extrusion and injection manufacturing processes. Firm employs 600. Supplies the leather, shoe, film and other industries. Mr. B. Olbrecht, Dir., Worbla AG, Papiermuhlestrasse 155-255E, 3063 Papiermuhle-Bern. WTD. P-70974

3500—MEXICO—Subsidiary of major U.S. aerospace firm **seeks licenses, subcontract agreements.** Originally produced aircraft; now makes welding machines, assembles filters. Well-equipped plant includes tool, machine, sheet metal shops; stresses quality control. Experienced labor force. Not interested in acquiring additional tools or equipment. Roger G. Todd, 510 W. Sixth St., Los Angeles, Calif. 90014 (213-623-7252, ext. 221). Additional information from: Dept. of Commerce, Office of International Investment, BIC-878, Washington, D.C. 20230. WTD. P-70987

3531—SPAIN—Producer of **mixers, pavers and related construction equipment** seeks capital investment of about $750,000 to expand. Offers equity, management participation. Claims good potential domestic market due to planned public work programs. Plans to export. Mr. R. Cortez, Mgr., Indemaco, S.A., Alcala 76, Madrid 9. WTD. P-70978

3567—FRANCE—Large firm seeks licenses to make **drum, belt, fluidized bed, pneumatic, vibrating and vacuum dryers, vibrating conveyors, and hydraulic metalworking machine tools.** Employs approximately 4,800; reports annual sales of $30 million. G. R. Bonnet, Chief Marketing, Forges de Strasbourg, Departments Comessa and Constructions Lourdes, 91 rue du Faubourg Saint-Honore, Paris 8. WTD. P-70985

3567—JAPAN—Licenses to manufacture U.S. **industrial heat processing equipment** are sought by a firm experienced in the industry. Particularly interested in acquiring the know-how to manufacture either electric or gas-fired continuous atmosphere metal heat processing equipment for quenching at 900-1300°C, annealing at 700-800°C, tempering at approximately 650°C, and brazing at 700-1000°C. Interest expressed in a license for **vacuum furnaces** in the region of 10^{-2}-10^{-3} mmHg. for automatic quenching forged patterns and dies and automatic annealing steel wire, hoop and narrow strip. Firm produces industrial furnaces, electronic equipment and appliances and radio communication equipment. Kokusai Electric Co., Ltd., 9 Shiba Nishikubo Sakuragawa-cho, Minato-ku, Tokyo. WTD. P-70986.

3599—GERMANY—Industrial controls and measuring equipment manufacturer wants licenses for **electronic measuring instruments, industrial analyzing instruments, automation and control equipment** for the chemical industry and petroleum refineries. Firm has about 500 employees. CONTROLLMATIC, Gesellschaft fuer Industrie Automation mbH., 6000 Nieder-Eschbach, Danziger Str. 11, Germany. WTD. P-70980

3600—HONG KONG—Interested in joint ventures to make **household electric appliances and electronic office equipment.** Hong Kong firm will invest capital; seeks technical know-how and licenses. Is prepared to negotiate. M. M. Burjani, Man. Dir., Murjani Industries Ltd., P.O. Box 1841, 52 Wing Kwong St., Hunghom, Kowloon, Hong Kong. WTD. P-70722

3622, 3821—SWITZERLAND—Experienced manufacturer and marketer of electronic controls for machine tools and watch machinery seeks manufacturing license for **industrial controls and process instruments for machine tools and high precision machinery.** Alternatively, the firm is willing to represent in Switzerland U.S. manufacturers of these controls and instruments. Distributes electronic devices and is interested in importation and representation for advanced electronic components, switches, contacts and relays; high speed stepping motors for digital motions, and x/y positioning systems. Established in 1946, the firm employs 40. Mr. G. Manta, Mgr., Dumaco AG, Elfenaustr. 3, 2500 Bienne, Switzerland. WTD. P-70977

3679 — SWITZERLAND — Experienced manufacturer of tickets and cards, recently commencing production of program cards for numerically controlled machine tools, seeks license to produce **cards and tapes for data processing and related magnetic industrial applications.** Firm plans to set up department specializing in application of magnetic film to cards and tape, desires technical collaboration with U.S. licensor and prepared to purchase necessary equipment and machinery from U.S. collaborator. Firm willing to discuss joint venture if U.S. company interested in first Swiss, then European markets. Mr. Lehner, Gen. Mgr., Muller & Cie AG, Bahnhofstr. 21, 8212 Neuhausen a. Rheinfall, Switzerland. WTD. P-70981

3949—GERMANY—License to manufacture **electric automatic target shooting ranges.** Company produces its own automatic target shooting ranges which it exports to over 70 countries; willing to consider cross-licensing or negotiate royalty payments or some other form of return. Established in 1938, the German firm employs 250. Ernst K. Spieth, 39 Alleenstrasse, D-7301 Zell/Neckar, West Germany. WTD. P-70988

7011—INDIA—Subsidiary of pharmaceutical firm is seeking U.S. financial and technical participation in establishing a **modern five-star hotel** in New Delhi. Company has "Letter of Intent" (approval in principle) from Government of India. Plans 300-room hotel, with extensive facilities; estimated cost is $5.3 million. Site already acquired and feasibility study underway. Bhai Mohan Singh, Man. Dir., Ranbaxy Laboratories Pvt. Ltd., Okhla, New Delhi. WTD. P-70990

Irish Office Relocates

The Industrial Development Authority Ireland has moved its New York office to 410 Park Ave., New York, N.Y. 10022 (212-371-8850). U.S. firms interested in business ventures in Ireland are invited to contact the Authority for assistance.

Tanzania Seeks Firms To Assist In Several Small-Scale Projects

The National Small Industries Corporation (NISC) of Tanzania is seeking experienced firms to participate in a variety of small-scale industrial projects. Capital investments for buildings and machinery totaling not more than $112,000, primarily for ventures outside of the capital city of Dar es Salaam, is particularly desired.

NISC plans to establish small industrial parks to provide various central facilities such as electroplating, heat-treating, forging and machine tools required by the proposed ventures. Among the projects sought are buckets of iron and steel; hand trolleys; strawboard (from rice or bagasse); envelopes, writing blocks, exercise books, etc.

Write to the National Small Industries Corporation Ltd., P.O. Box 2476, Dar es Salaam, Tanzania. P-70983

Taiwan Spells Out New Investment Criteria

The Republic of China (Taiwan), has announced that under its new investment policy it will be more selective in approving applications from foreign investors, emphasizing a shift from labor-intensive industries toward more sophisticated, capital-intensive industries.

Future investment will be encouraged in the following categories: (1) industries using local raw materials or semi-finished products for the manufacuture of goods for export; (2) industries which introduce new technical know-how and for whose products there is a market either locally or overseas; (3) cooperative undertakings in connection with the prospecting for, and/or exploitation of, natural resources;(4) industries with research and development departments that may contribute to the upgrading of technical know-how in Taiwan; and (5) industries which offer training to local staff in scientific operations and modern management of factories.

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) manual.

Background information on opportunities abroad and also assistance on overseas investments are available from the Office of International Investment, U.S. Department of Commerce, BIC-878, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

For additional information on opportunities to manufacture foreign firms' products in the U.S., write Commerce's Office of International Investment, BIC-874, referring to the applicable file number assigned each opportunity.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230, or from any Commerce Field Office.

Licensing In U.S.

2899—FRANCE—**Water sterilizing system** for swimming pools with elementary bromine. **File 1970**

2952—SWITZERLAND—Insulated **sliding walls** for trucks used in hauling food. The walls are engineered so that the food is accessible along half the length of the truck body. **File 1971**

3079 — WEST GERMANY — Patented **plastic ring** which holds hand towels, dish towels and dishcloths. **File 1972**

3079 — FRANCE — **Extruding cellular polyvinyl chloride process** which can be used in the manufacture of several products, including PVC pipe, rainspouts, gutters, sheathing and panels. Presses used for extruding thermoplastics are suitable for the application of this new process. **File 1973**

3079 — WEST GERMANY — Plastic heavy-duty **collapsible box** for shipping and storage. **File 1974**

3541 — SWITZERLAND — Heavy-duty precision cold **circular saw** with hydraulic transmission. Unit has eight cutting speeds and adjustable guide. **File 1975**

3581—FRANCE—**Automatic news-stand.** Distributes 10 different daily newspapers at varying prices and makes change automatically. **File 1976**

3648—FRANCE—Pressure **switches** designed to insure safety when there is a drop in combustion air pressure and maximum-minimum gas pressure safety in gas burners. **File 1977**

3714—AUSTRIA—Patented **wheel** cushioned by an inflated rubber tube placed between the rim and hub of the wheel. Inventor claims it is a simplification of present wheel design. **File 1978**

3821 — FRANCE—**Oceanographic measurement** problem to obtain sound velocity or water temperature profiles. No cable or winch necessary. **File 1979**

3821—FRANCE—Rapid **numerical moderator** which enables extracting of signal with a known reference from the sound of a repeated synchronous signal. The reference signal can be of pulse type (stimulus) or similar (linear variation of a physical parameter, magnetic or electric field, luminous flux, etc.). The principal of extraction of the signal from the noise is effected by additions. The results can be shown on oscilloscope or on a graphic recorder. They are also available in digital form and can be recorded on a printed or punched tape. **File 1980**

3821 — FRANCE — Patented **scales** for measuring pressure of gas in pipelines and the flow of oil and other fluids. The detection component is a tungsten carbide piston-cylinder system. The beam is subjected to two forces: mobile weight and force from pressure transmitted by the piston. **File 1981**

3842—FRANCE—A self-contained gasmask type **respiratory apparatus** intended for use by firemen and employees in certain industrial occupations. **File 1982**

3941 — SWITZERLAND — **Game** played with magnetic parts. For all age groups. Patent pending. **File 1983**

U.S. Insurance Firms' Payments Outflow Is Highest Recorded

A survey of reinsurance transactions between U.S. insurance companies and insurers in other countries shows that U.S. insurance companies made net payments of $108.8 million to foreign insurers in 1969, the Department of Commerce has reported.

The term "reinsurance" describes the transfer by insurance companies of a portion of the liability they have assumed to other insurance companies, that is, reinsurers. The reinsurer receives a proportionate share of the original premium and shares in the payment of losses incurred by the ceding insurance company. The purpose of reinsurance is to make it possible for a single primary insurer to underwrite risks which it could not otherwise handle and to avoid large year-to-year fluctuations in its underwriting results.

In 1969 United States insurance companies paid $425.5 million in premiums for reinsurance purchased from foreign reinsurers and recovered from them $274.2 million in losses. The $151.3 million excess in 1969 of premiums paid over losses recovered, the highest this figure has been, is attributable in large measure to increased reinsurance premiums and reduced losses even with the loss caused by the Hurricane Camille.

The $151.3 million excess of premiums paid over losses recovered was offset by net receipts of $42.5 million by United States reinsurers on reinsurance they sold to foreign insurers. U.S. insurance companies received $205.7 million in premiums on reinsurance sold abroad and paid losses thereon of $163.2 million.

The 1969 net payments abroad were the highest since the Department of Commerce began its present system of recording reinsurance transactions in 1950. Net payments in 1965 had dropped to $8 million from $50 million the year before because of heavy receipts from foreign insurers as a result of damage caused by Hurricane Betsy.

Of the $425.5 million of premiums paid by U.S. ceding insurance companies in 1969, British reinsurers received $337.4 million. Thus in 1969 premiums for reinsurance purchased from British reinsurers accounted for 79% of the total.

AMA Schedules Meeting On International Finance

Its first annual International Finance Conference has been scheduled by the American Management Association at the Waldorf-Astoria Hotel in New York Feb. 22-24.

On the speaker's list are Edward Hambro, President of the United Nations General Assembly; Roy L. Ash, president of Litton Industries, and George Ball, former U.S. Under Secretary of State and presently a partner in Lehman Brothers in New York.

Chairmen will be Charles C. Townsend, treasurer of the IBM World Trade Corporation, New York, and Jacques R. Stunzi, president of Allied Bank International, New York.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the International Liaison and Trade Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms are interested are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U.S. firms should also be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-924, Washington, D.C. 20230 or from any Commerce Field Office.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Canning, preserving foods

20373 — SINGAPORE — Frozen meats. A. F. Buchan, Mgr., Purchasing & Administration Refrigerated Foods Div., Cold Storage (Malaysia) Sdn. Bhd. (importer, agent, retailer), Empire Dock, P.O. Box 598, Singapore. WTD in prep.

Textile goods

22952—SINGAPORE—PVC Leathercloth, sponge leather, PVC sheeting, non-rigid, PVC compound. Tai On Loong Co. (importer, dist.), 34 So. Bridge Rd., Singapore 1. WTD in prep.

Sawmills, planing mills

24211—ITALY — Sawed lumber: hemlock, douglas fir, red cedar, pitch pine, red gum, other American lumber; first quality, common and select. Roberto L. Giudice (importer, dist.), Piazza Angelo Maiorana 8, 95131 Catania. WTD 11/70.

Converted paper, paperboard products

26414—PHILIPPINES—Industrial tapes (masking tapes, film tapes, autoclave tapes, etc.) Wan Lu Trading (importer, dist.), 718 T. Alonzo St., Sta. Cruz, Manila. WTD in prep.

Industrial chemicals

● **28100—HONG KONG**—Liquid chlorine, 1,640 cylinders, 31.3 kilo capacity; 5,743 cylinders, 69.4 kilo capacity; and 5,680 drums, 813 kilo capacity. Chemicals to be delivered over five years (May 1, 1971 to Apr. 30, 1976). Tender No. PT/53/70 File ref: supplies A-39247; bid deadline Jan. 8. The Secretary, Central Tender Board, Colonial Secretariat, Central Government Offices, Lower Albert Rd., Hong Kong. Tenders accepted only through Hong Kong agents or by Crown Agents, London (Office in Washington). Tender details available from Chemicals Div., Dept. of Commerce, BDC-665, Washington, D.C. 20230 ★(202-967-3468). Review Copy available at Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

28152—GERMANY — Synthetic organic dyes. Prices c.i.f. European ports. Direct purchase & agency. S. Goldman & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28153—GERMANY—Synthetic organic pigments. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28161—GERMANY—Titanium pigments. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28163—GERMANY—Chrome colors, other inorganic pigments. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28181—GERMANY — Miscellaneous cyclic chemical products. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28183—GERMANY — Synthetic organic chemicals. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28184—GERMANY—Pesticides, other organic chemicals. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28185—GERMANY—Ethyl alcohol, other industrial organic chemicals. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28199 — GERMANY — Other inorganic chemicals. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

28199 — SINGAPORE — Sulphur, aluminum hydroxide, formic acid, sodium silicate, etc. Koo Ling Ching, Man. Dir., Chemical Corp. of Singapore Ltd. (importer, retailer), Jalan Gudang, Jurong Industrial Estate, Singapore 22. WTD 1/69.

Synthetic materials

28210 — ISRAEL — Polyethylene, PVC sheets or any other suitable material for lining of solar-evaporation salt pools to eliminate seepage. Israel, Salt Co. Ltd. (mfr.), Atlit. Cable address: Israsalt Haifa; Telex: 044-752. WTD in prep.

Drugs

28340—ISRAEL—Bethanidine sulphate, pharmaceutical preparation. Sam-On Ltd.-Pharmaceutical & Chemical Laboratories (importer, dist., mfr.), P.O. Box 1814, Tel Aviv. WTD 9/70.

Tires, tubes

30111—NETHERLANDS—New passenger car tires, all kinds. No used tires. Hofka de Bandenspecialist N.V. Attn: Leen A. van 't Hof, Mgr. (importer, dist./exporter, mfr.), 39 Molendijk, or P.O. Box 1, Klaaswaal. WTD 10/70.

30112—NETHERLANDS — New truck, bus tires, all kinds. No used tires. Hofka de Bandenspecialist N.V. Attn: Leen A.. van 't Hof, Mgr. (importer, dist./exporter, mfr.), 39 Molendijk, or P.O. Box 1, Klaaswaal. WTD 10/70.

30113—NETHERLANDS — New tractor, industrial, earthmoving vehicle tires, all kinds, especially large size tractor tires. No used tires. Hofka de Bandenspecialist N.V. Attn: Leen A. van 't Hof, Mgr. (importer, dist./exporter, mfr.), 39 Molendijk, or P.O. Box 1, Klaaswaal. WTD 10/70.

Fabricated rubber products

30694 — ISRAEL — Fabricated rubber products, rubber flooring, plinth, linoleum, and nosing. Specifications available from Trade Opp. Staff, Dept. of Commerce, BDC-541, Rm. 5877, Washington, D.C. 20230. Hamashbir Hamerkazi Ltd. (Israel Cooperative Wholesale Society) (importer, exporter), 76 Giborei Israel St., P.O. Box 130, Tel Aviv. Attn: Z. Shinar, Import/Export Dept. WTD 8/70.

Plastic products

30796—NETHERLANDS—Plastics sinks, draining-boards, other formed and pressed technical and domestic products. Exclusive rep. Verenigde Plastic Industrie PLASTCO-EPLEX-BIOPLEX, Attn: J. E. van der Parre (importer, dist., mfr.), 20A Zon en Maanstratt, Hilversum. WTD 11/70.

30798—NETHERLANDS—Biological embedments in plastic. Exclusive rep. Verenigde Plastic Industrie PLASTCO-EPLEX-BIOPLEX, Attn: J. E. van der Parre (importer, dist., mfr.), 20A Zon en Maanstraat, Hilversum. WTD 11/70.

Leather tanning, finishing

31114—GERMANY — Finished alligator, crocodile, snake, turtle leather. George Hellwig KG. (importer, dist., mfr.), 70 Frankfurter Str., 6050 Offenbach/Main WTD 4/70.

Structural clay products

● **32500—INDIA**—About 60,000 tons of refractories of various specs. and drawings. Tender Nos. PV111-94063/GT and PV111/OPR/GT; bid deadline Feb. 22. Bokaro Steel Ltd., Bihar. Copies of tender available from India Supply Mission, 2536 Massachusetts Ave., NW., Washington, D.C. 20008.

Steel mill products

33120 — PAKISTAN — Galvanized iron sheets 24 gages; size, 8′ x 3′; quantity, 8 tons. Requests quotations, c. & f. Karachi. K.D.C. Chemicals Ltd. (importer), Rattan St., Opp. Saeed Manzil, Karachi. WTD in prep.

33124—PAKISTAN—Mild steel plates; thickness 3/16", 1/4", 3/8", sizes 20′ x 5′; 20′ x 4′; 20′ x 6′; quantity, 25 tons. Requests quotations, c. & f. Karachi. K.D.C. Chemicals Ltd. (importer), Rattan St., Opp. Saeed Manzil, Karachi. WTD in prep.

33127 — PAKISTAN — Mild steel sheets (CRCA) 24 gage; size 8′ x 3′; quantity 8 tons. Stainless steel sheets 1 mm, 1.5 mm, 2 mm, 2.5 mm, 3 mm or their equivalent gage, size 8′ x 4′; quantity 5 tons. Requests quotations c.&f. Karachi. K.D.C. Chemicals Ltd. (importer), Rattan, St., Opp. Saeed Manzil, Karachi. WTD in prep.

Rolling, drawing, extruding of nonferrous metals

33522 — PAKISTAN — Aluminum sheets (half round)—16, 18, 20 gage; size, 4′ x 8′; quantity, 5 tons. Requests quotations, c. & f. Karachi. K.D.C. Chemicals Ltd. (importer), Rattan St., Opp. Saeed Manzil, Karachi. WTD in prep.

33560—THAILAND — Silver and copper alloy blank coins, quantity about 6 million, to be stamped by Thai Mint Div., Ministry of Finance. Requests literature, c.i.f. Bangkok prices. Multi-Resources (Thailand) Ltd. (commission agent), 42 Soi Sapanpla, Yannawa, Bangkok. WTD 3/70.

Cutlery, hand tools, general hardware

34291—SINGAPORE—Marine hardware for shipbuilding and repairing: e.g. windlasses, winches, stainless steel tailshafts, anchors, steel plates, valves, etc. Lim Lee Lian, Robin Shipyard (Pte.) Ltd. (agent, ship builder, repairer & charter ships), Rhu Cross, Tanjong Rhu, Singapore 15. WTD in prep.

Fabricated structural metal products

● **34400—INDIA**—Supply three sets of 6 feet by 8 feet high pressure radial gates and gate frames together with their hydraulic hoists, capacity 30 tons, complete and conforming to Specification No. 19BLD. Tender No. BPO/1177/PR/802; bid deadline Jan. 21. Specifications available for U.S. $13.33 plus postage from Assistant Accounts Officer, Beas Project, Talwara Township, Hoshiarpur, Punjab. One copy of specifications available for reference at Power & Electrical Equip. Div., Dept. of Commerce, Washington, D.C. 20230 (202-967-4189).

Fabricated wire products

● **34800—BURMA**—Supply 750 rolls of concrete reinforcement steel fabric conforming to B. S. S. 1221/1964, Part A, or equivalent. Bid deadline Jan. 5. Tender documents available from the Dept. of Commerce, BDC-645, Washington, D.C. 20230 (202-967-5289), and the Dept. of Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

Fabricated metal products

24990—AUSTRALIA—Skate board wheel assemblies suitable for screw attachment to plywood boards with shock mounting and two point linkage; composition wheels preferred with double row ball bearing wheel assembly. Vel-Aqua Marine Supplies Pty. Ltd. Attn: J. F. Holstock, Man. Dir. (importer, dist., mfr.), 19 Wells Rd., Oakleigh, Victoria 3166. WTD 11/70.

Engines, turbines

● **35100—BRAZIL** — Request for prequalification bids for supply of 4 vertical shaft Francis type hydraulic turbines and 4 synchronous generators for above. Deadline Jan. 15. Centrais Electricas Do Sul Do Brasil S.A. (Electrosul), Departamento de Engenharia, Av. Presidente Vargas 446-4th Floor, Rio de Janeiro—ZC-OO Guanabara. Details available from the Power & Electrical Equip. Div., Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4189).

Farm machinery

35223 — FRANCE — Hydro-seeders for planting grass on sides of highways. Societe Europeenne d'Engazonnement Industriel, Mr. de Vilmoren (industrial landscaping), 1, rue des Marronniers, 77-Villemer, par Moret. WTD in prep.

Construction, mining, materials handling machinery, equipment

● **35300—BRAZIL**—Two overhead traveling cranes for power house service, approx. capacity 150 metric tons each or alternatively 300 metric tons each at main hoist; one gantry crane for spillway and intake stoplogs, 60 m/tons; one gantry crane for draft tube stoplogs, 25 metric tons; and, one gantry crane for power house construction, 40 metric tons. Bid deadline Jan. 19. Central Electrica de Furnas S.A., Diretoria de Contratos e Suprimentos, Departamento de Contratos, Rua Real Grandeza, 219-10th Floor, Rio de Janeiro. Information on pre-qualifications for tender may be obtained from General Industrial Equip. Div., Dept. of Commerce, BDC-647, Washington, D.C. 20230 (202-967-5585).

35310—FRANCE—Second-hand, surplus, and/or reconditioned, rebuilt construction machines such as bulldozers, motor scrapers, motor graders. Descriptive literature, price lists requested. S.T.A.I. (Societe Regourd & Fils) (importer, dist., agent), Route de Paris, 31 Saint-jory. WTD 1/70.

35316—GERMANY—All kind of mixers (except concrete and food) agitators, homogenizers, jet mixers, stirrers, others for industrial purposes. Correspondence requested in German. Juergen Bahnsen; Attn: Frank Trabold (importer, dist.), 2000 Hamburg 22, Arndtstrasse 18. WTD 10/70.

Metalworking tools

● **35400—SOUTH AFRICA**—Two 150-ton basic oxygen furnaces and associated equipment. Tender N6; bid deadline Feb. 8. Continuous merchant bar mill and associated equipment; Tender N1, bid deadline Feb. 15. The Head, Capital Buying, South African Iron & Steel Corp. (ISCOR), P.O. Box 450, Pretoria, Transvaal. Tender documents obtainable from ISCOR headquarters against a deposit of $210 and $140 respectively for each copy. Deposits refunded on receipt of bonafide tender.

35423—ISRAEL—Riveting machine for manufacture of pop rivets of aluminum. Air Conditioning Products Ltd. (dist., mfr.), 9 Malkhei Israel Square, Tel Aviv. WTD in prep.

35451—BRAZIL—Threading tools. ATRI-Representacoes Importacao e Exportacao Ltda. (importer, dist., mfr.), Rua Souza Valente, 17-C, Rio de Janeiro-GB. WTD in prep.

35482—BRAZIL—Power driven, pneumatic handtools. ATRI-Representacoes Importacao e Exportacao Ltda. (importer, dist., mfr.), Rua Souza Valente, 17-C, Rio de Janeiro-GB. WTD in prep.

Special industry machinery

35511—GERMANY—Ice cream manufacturing machinery. Prices c.i.f. European ports. Adolf Miebach, Verpackungsmaschinen GmbH (dist., mfr., agent), Bahnhofstr. 4-8, 4049 Wevelinghoven. WTD 10/70.

35512—GERMANY—All kind of mixers, agitators, homogenizers, jet mixers, stirrers, others except dough kneading machines. Correspondence requested in German. Juergen Bahnsen; Attn: Frank Trabold (importer, dist.), 2000 Hamburg 22, Arndtstrasse 18. WTD 10/70.

35513—GERMANY—Food and beverage packaging machinery. Prices c.i.f. European ports. Adolf Miebach, Verpackungsmaschinen GmbH (dist., mfr., agent), Bahnhofstr. 4-8, 4049 Wevelinghoven. WTD 10/70.

35513 — PHILIPPINES — Spray drying plant for banana powder, capacity 250 kgs/hr of powder production. Prefer serviceable used unit. Rus Nograles, 943-0 Estrada St., Manila. WTD in prep.

35521—NIGERIA—Textile finishing machines for spinning, weaving, finishing, dyeing, bleaching, sizing of textiles. Also seeks U.S. technical know-how. J. T. Chanrai & Co. (P.H.) Ltd. (importer, dist. mfr.), 37-43 Great Bridge St., P.O.B. 3281, Lagos. WTD in prep.

35593—GERMANY—New to the market specialized plastics working machinery, equipment. Prices c.i.f. European ports. Direct purchase & agency. S. Goldmann & Co. KG. (importer, dist., agent), 79 Schillerstrasse, 48 Bielefeld. WTD 8/70.

35594—ARGENTINA—Rubber or plastic glove cutting, sealing machine. Correspondence requested in Spanish. Plastilit S.A. (mfr.), Av. Facundo Zuviria 6652, Santa Fe, Province of Santa Fe. WTD in prep.

General industry machinery

35642 — GERMANY — Air purification equipment; c.i.f. European ports. Druna-Heizung GmbH. (dist., mfr., exporter), 64 Girardetstrasse, 43 Essen/Ruhr. WTD 11/70.

35663 — SINGAPORE — Machinery supplies for shipbuilding and repairing, e.g. main engines, etc. Lim Lee Lian, Robin Shipyard (Pte.) Ltd. (agent, ship builder, repairer & charter ships), Rhu Cross, Tanjong Rhu, Singapore 15. WTD in prep.

35671—THAILAND—Electric arc steel furnace, LD converter, with capacity of 10 to 15 tons per charge, related oxygen manufacturing plant with capacity of 2,500 cu. meter per hr. Requests catalogs, c.i.f. Bangkok prices, plant lay-out, engineering assistance, turn-key basis. Bangkok Industry Service Co., Ltd. (mfr.), 857 New Rd., Talad Noi, Bangkok. WTD in prep.

35673—GERMANY—Heating equipment including parts, accessories; c.i.f. European ports. Druna-Heizung GmbH. (dist., mfr., exporter), 64 Girardetstrasse, 43 Essen/Ruhr. WTD 11/70.

35690—BRAZIL — Centralized lubricating systems; industrial lubrication equipment; automatic lubrication machinery. ATRI-Representacoes Importacao e Exportacao Ltda. (importer, dist., mfr.), Rua Souza Valente, 17-C, Rio de Janeiro-GB. WTD in prep.

35690—THAILAND—Machinery for manufacturing wire rope, size 3 mm. to 1 in. diameter, with capacity of 2,000 tons per yr.; for galvanized iron wire netting, hexagonal and square mesh from ⅜ to 2 in., with capacity of 2,000 tons per yr.; and for manufacturing wire rods, size 5.5 mm. diameter, with capacity of 60,000 tons per yr. Requests catalogs, c.i.f. Bangkok prices, plant lay-out, engineering assistance, turn-key basis. Bangkok Industry Service Co., Ltd. (mfr.), 857 New Rd., Talad Noi, Bangkok. WTD in prep.

Office, computing, accounting machines

35720—GERMANY—Typewriters. Prices c.i.f. Hamburg or Bremen. Direct purchase & agency. Heinrich Knopp KG. (agent, retailer), 31-35 Pfeilstrasse, 5 Koeln. WTD 9/70.

35731 — GERMANY — Data processing machinery. Prices c.i.f. Hamburg or Bremen. Direct purchase & agency. Heinrich Knopp KG. (agent, retailer), 31-35 Pfeilstrasse, 5 Koeln. WTD 9/70.

35731—GERMANY — Second hand data processing machines, associated equipment; second hand punchcard system machines. Direct purchase & agency. Klaus Burkhardt K.G. (importer, dis.), D 7051 Neustadt bei Waiblingen, Pirolweg 7. WTD 10/70.

35733 — GERMANY — Electronic computers. Prices c.i.f. Hamburg or Bremen. Direct purchase & agency. Heinrich Knopp KG. (agent, retailer), 31-35 Pfeilstrasse, 5 Koeln. WTD 9/70.

35741—GERMANY — Calculators. Prices c.i.f. Hamburg or Bremen. Direct purchase & agency. Heinrich Knopp KG. (agent, retailer), 31-35 Pfeilstrasse, 5 Koeln. WTD 9/70.

35791 — GERMANY — Duplicating machines. Prices c.i.f. Hamburg or Bremen. Direct purchase & agency. Heinrich Knopp KG. (agent, retailer), 31-35 Pfeilstrasse, 5 Koeln. WTD 9/70.

Service industry machines

35892—FRANCE—Wax sealing devices for bottle caps. Descriptive literature, price lists requested. CAMUS S.A. (importer), 13 rue Marguerite de Navarre, 16 Cognac. WTD 10/70.

Household appliances

36310 — SINGAPORE — Ovens, cookers, etc. Polon Enterprises (Pte.) Ltd. (importer, dist., retailer), 122-A Robinson Rd., Singapore 1. WTD in prep.

Machinery

35991—KENYA—Machinery for making oil filters. Nathwani Petrol Station (importer), P.O. Box 5172, Nairobi. WTD 11/70.

Communication equipment

● **36600—IRELAND** — Supply automatic telephone switching equipment. Tender No. I. 2001; bid deadline Jan. 20. Copies of tender announcement and specifications available from Engineer-in-Chief, Contracts Sec., Dept. of Posts & Telegraphs, Hawkins House, Dublin 2, or on short-term loans to firms located in U.S. from Communications-Electronics Div., Dept. of Commerce, BDC-643, Room 4209, Washington, D.C. 20230 ★(202-967-4823).

36623—NETHERLANDS — Crime detection, security equipment, all kinds. Direct purchase &/or agency. Alarm Beveiliging Maatschappij N.V. Attn: L. S. van de Goorberg Jr., Mgr. (dist., mfr./installer, retailer), 123 Hoogstraat, Eindhoven. WTD 11/70.

Electronic components, accessories

36741 — BRAZIL — Photoelectric cells. ATRI-Representacoes Importacao e Exportacao Ltda. (importer, dist., mfr.), Rua Souza Valente, 17-C, Rio de Janeiro-GB. WTD in prep.

Motor vehicles, motor vehicle equipment

37141 — SINGAPORE — Motor vehicles parts, accessories. Polon Enterprises (Pte.) Ltd. (importer, dist., retailer), 122-A Robinson Rd., Singapore 1. WTD in prep.

Engineering, laboratory, scientific, research instruments

38112 — SWITZERLAND — Laboratory, scientific instruments, all kinds, incl. educational. Hospilab SA (dist., agent), Oberfeldweg 7, P.O. Box 80, 3250 Lyss. WTD 9/70.

Instruments for measuring, controlling, indicating physical characteristics

● **38200—BRAZIL**—Supply of water

valves, meters and miscellaneous control instruments and equipment. Tender No. 21/70; bid deadline not announced. Copies of tender documents and specifications are available from Companhia Metropolitana de Agua de Sao Paulo (COMASP), Economic Studzdepartment, Av. Paulista 1754, 3rd Floor, Sao Paulo. COMASP will finance purchases through foreign loans already obtained from IDB.

● **38200—TUNISIA**—Supply 35,000 individual water meters and miscellaneous related equipment; also 305 large size twin-bodied water meters. Bid deadline Jan. 30. Invited by Societe Nationale d'Exploitation et de Distribution des Eaux (SONEDE) 23, Rue Dr Braquehaye, Tunis. Correspondence preferred in French. Project jointly financed by World Bank and Swedish Government loans. Tender documents may be purchased from SONEDE for U.S.$50 each.

38214—BRAZIL—Tachometers. ATRI-Representacoes Importacao e Exportacao Ltda. (importer, dist., mfr.), Rua Souza Valente, 17-C, Rio de Janeiro-GB. WTD in prep.

38213—THAILAND—Engine test bed for gasoline, diesel engines; gas turbine test bed; fluid flow apparatus; heat transfer test equipment; refrigeration and air condition test plant; material testing machines. Requests specifications, catalogs, prices. Asiatic Engineering Co., Ltd. (importer, dist., agent), 335-337 Worachak Rd., Bangkok. WTD 7/70.

38216—THAILAND—Aerodynamics test equipment, consisting of supersonic wind tunnel, air compressor (200 psi.), air dryer, other accessories. Requests specifications, catalogs, prices. Asiatic Engineering Co., Ltd. (importer, dist., agent), 335-337 Worachak Rd., Bangkok. WTD 7/70.

Surgical, medical, dental instruments

● **38400—CONGO (K)**—Supply of anesthesia apparatus including carbon dioxide absorber, various gases vaporizers, etc. Tender No. 917/70; bid deadline Jan. 12. Terms and specifications in French; correspondence preferred in French. Invited by DCMP, Ministry of Health, P.O. Box 1497, Kinshasa. Terms and specifications available on loan from Scientific & Business Equip. Div., Dept. of Commerce, BDC-653, Washington, D.C. 20230 ★(202-967-2939).

● Supply of 180 items in various quantities of dental instruments and equipment including drills, forceps, filling instruments, curettes, paste, liquid for abscesses, porcelain cement, drill brushes, scissors, etc. Tender No. 916/70; bid deadline Jan. 19. Terms and specifications in French; correspondence preferred in French. Invited by DCMP, Ministry, of Health, P.O. Box 1497, Kinshasa. Terms and specifications available on loan from Scientific & Business Equip. Div., Dept. of Commerce, BDC-653, Washington, D.C. 20230 ★(202-967-2939).

● Supply 15 of the following dental supplies: basic dental units, hydroelectric chairs, air compressors, instrument cabinets, electric wall-hanging drills, portable electric drills, portable foot-operated drills; 30 simple dentist chairs with headrest and spittoon, 30 storage cabinets for dental instruments. Tender No. 895/70; bid deadline Jan. 8. Terms and specifications in French. Correspondence preferred in French. Invited by the DCMP, Ministry of Health, P.O. Box 1497, Kinshasa. Terms and specifications available on loan from Scientific & Business Equip. Div., Dept. of Commerce, BDC-653 Washington, D.C. 20230 ★(202-967-2939). A review copy available at Commerce Field Office, 11444 Federal Bldg., 450 Golden Gate Ave., San Francisco, Calif. 94102 (415-556-5868).

38423—PHILIPPINES—Industrial masks (dust masks, ammonia masks, interchangeable masks, etc.) Wan Lu Trading (importer, dist.), 718 T. Alonzo St., Sta. Cruz, Manila. WTD in prep.

Toys, amusement, sporting goods

39420—PHILIPPINES—Dolls, non-toxic polyvinyl, all kinds, sizes. Wan Lu Trading (importer, dist.), 718 T. Alonzo St., Sta. Cruz, Manila. WTD in prep.

39493 — GERMANY — Camping equipment, utensils. HAUSRAT-Import GmbH (importer, agent), 10 Ohmstrasse, D-7100 Heilbronn/Neckar, Baden-Wuerttemberg. WTD 9/70.

Manufacturing industries

39931 — NETHERLANDS — Illuminated signs, lighting fixtures. Exclusive rep. Verenigde Plastic Industrie PLASTCO-EPLEX-BIOPLEX, Attn: J. E. van der Parre (importer, dist., mfr.), 20A Zon en Manstraat, Hilversum. WTD 11/70.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Food preparations

20999—SINGAPORE—High grade honey. Mrs. A.C.N. Thomas, Proprietor, Natural Health Supplies Centre (importer, dist., retailer), 32 Tanglin Rd., Singapore 10. WTD in prep.

Broad wiven fabric mills, cotton

22117 — SINGAPORE — Finished cotton, broad-woven fabrics. A. J. Isaac, Hilda's (importer, dist., agent), 90-A Orchard Rd., Singapore 9. WTD in prep.

Broad woven fabric mills, manmade fiber, silk

22210 — SINGAPORE — Upholstery fabrics. Jacob N. Isaac, N.S. Isaac & Sons (importer, dist., agent), P.O. Box 706, Singapore. WTD in prep.

22210 — SINGAPORE — Weaving mills, synthetic fabrics; rayon, etc. A. J. Isaac, Hilda's (importer, dist., agent), 90-A Orchard Rd., Singapore 9. WTD in prep.

Knitting mills, products

22510—SINGAPORE—Women's hosiery, stockings, etc. A. J. Isaac, Hilda's (importer, dist., agent), 90-A Orchard Rd., Singapore 9. WTD in prep.

Texile goods

22982 — PHILIPPINES — Nylon ropes. Kayamanan Trading & Marketing Corp. (agent), North Bay Blvd., Navotas, Rizal. WTD in prep.

Men's, youths', boys' furnishings, work clothing

23280 — SINGAPORE — Shirts, singlets, pants, dungarees, etc., for men, boys. Lalchand Hemandas Vaswani, Lalchand's (importer, dist., agent), Malaysia Arcade Rm. 14, 75-A High St., Singapore 6. WTD in prep.

Women's, misses', juniors' outerwear

23310—SINGAPORE — Readymade garments: women's, misses', juniors' blouses, waists. A. J. Isaac, Hilda's (importer, dist., agent), 90-A Orchard Rd., Singapore 9. WTD in prep.

23350—SINGAPORE—Women's, misses' dresses. Lalchand Hemandas Vaswani, Lalchand's (importer, dist., agent), Malaysia Arcade, Rm. 14, 75-A High St., Singapore 6. WTD in prep.

23350—SINGAPORE—Women's misses', juniors' dresses, readymade garments. A. J. Isaac, Hilda's (importer, dist., agent), 90-A Orchard Rd., Singapore 9. WTD in prep.

23370 — SINGAPORE — Readymade garments: women's, misses', juniors' suits, coats. A. J. Isaac, Hilda's (importer, dist., agent), 90-A Orchard Rd., Singapore 9. WTD in prep.

Women's, misses', children's, infants' under garments

23420—SINGAPORE — Brassieres, girdles, etc. A. J. Isaac, Hilda's (importer, dist., agent), 90-A Orchard Rd., Singapore 9. WTD in prep.

23420—SINGAPORE — Brassieres, corsets, girdles, etc. Lalchand Hemandas Vaswani, Lalchand's (importer, dist., agent), Malaysia Arcade, Rm. 14, 75-A High St., Singapore 6. WTD in prep.

Fabricated textile products

23990—PHILIPPINES—Nylon or similar fishing nets. Kayamanan Trading & Marketing Corp. (agent), North Bay Blvd., Navotas, Rizal. WTD in prep.

Pulp mills, products

26110—ITALY—Waste paper for processing by paper mills. Franco Rol (importer, dist., agent), Corso Generale Govone, 10, Turin 10129. WTD in prep.

Pulp mills, products

26112 — NETHERLANDS — Sulfate and sulfite bleached, semibleached and unbleached wood pulp for sale to paper, rayon manufacturers, manufacturers of other viscose products. Exclusive agency representations required for Benelux countries, W. Germany, Italy, France. Pulpchemie N.V. Attn: B. IJssennagger (dist., agent), 73 Nijenburg (P.O. Box 7040), Amsterdam. WTD in prep.

26112—ITALY—Bleached and unbleached sulfate and sulfite pulp, bleached and unbleached kraft pulp, groundwood pulp. Mugnai Emilio (agent), 377 Viale Italia, I 57100-Leghorn. WTD 11/70.

Paper mills

26211—THAILAND—Newsprint paper, in rolls of 43, 56 and 72 in. width, approximately 5,000 tons per yr. Requests catalogs, c.i.f. Bangkok prices. S. Good-will Trading Ltd. Partnership (importer, dist.), 2/10 Nakarach Lane, Bamroongmuang Rd., Bangkok. WTD in prep.

Paperboard mills, products

26310—ITALY—Pulpboard. Mugnai Emilio (agent), 377 Viale Italia, I 57100-Leghorn. WTD 11/70.

26311—ITALY — Kraft liner. Mugnai Emilio (agent), 377 Viale Italia, I 57100-Leghorn. WTD 11/70.

26314 — ITALY — Semichemical paperboard (corrugating medium). Mugnai Emilio (agent), 377 Viale Italia, I 57100-Leghorn. WTD 11/70.

Industrial chemicals

28185—NETHERLANDS—Organic chemicals in bulk for paper, pulp, chemical, textile industries. Exclusive agency representation required for Benelux countries, W. Germany, Italy, France, Norway, Sweden, Finland. Pulpchemie N.V. Attn: B. IJssennagger (dist., agent), 73 Nijenburg (P.O. Box 7040), Amsterdam. WTD in prep.

28199 — NETHERLANDS — Inorganic chemicals in bulk for paper, pulp, chemical, textile industries. Exclusive agency representation required for Benelux countries, W. Germany, Italy, France, Norway, Sweden, Finland. Pulpchemie N.V. Attn: B. IJssennagger (dist., agent), 73 Nijenburg (P.O. Box 7040), Amsterdam. WTD in prep.

Synthetic materials

28210—SWITZERLAND—Molding powders of all kinds. Worbla AG; Attn: Mr. Olbrecht (mfr., agent), Papiermuhlestrasse 155-255E, 3063 Papiermuhle-Bern. WTD in prep.

28213 — SWITZERLAND — Thermoplastic resins, all kinds. Worbla AG; Attn: Mr. Olbrecht (mfr., agent), Papiermuhlestrasse 155-255E, 3063 Papiermuhle-Bern. WTD in prep.

28216—SWITZERLAND—Synthetic resins for coating purposes. Worbla AG, Attn: Mr. Olbrecht (mfr., agent), Papiermuhlestrasse 155-255E, 3063 Papiermuhle-Bern. WTD in prep.

Converted paper, paperboard products

28412—SOUTH AFRICA—Soaps, household. Silvers Agencies (mfr.'s agent), P.O. Box 4798, Cape Town, Cape Province. WTD 10/70.

28415 — SOUTH AFRICA — Detergents, household. Silvers Agencies (mfr's agent), P.O. Box 4798, Cape Town, Cape Province. WTD 10/70.

28423 — SOUTH AFRICA — Cleaning, sanitation products. Silvers Agencies (mfr's agent), P.O. Box 4798, Cape Town, Cape Province. WTD 10/70.

28442—SOUTH AFRICA—Perfumes, toilet water, colognes. Silvers Agencies (mfr's agent), P.O. Box 4798, Cape Town, Cape Province. WTD 10/70.

28445—SOUTH AFRICA—Cosmetics, toilet preparations. Silvers Agencies (mfr.'s agent), P.O. Box 4798, Cape Town, Cape Province. WTD 10/70.

Paints, varnishes, lacquers, enamels

28510 — SINGAPORE — Varnishes, oil paintings, emulsion paints, etc. Shroffs (Malaya) Sdn. Bhd. (importer, dist., agent), 255-A Tanjong Katong Rd., Singapore 15. WTD in prep.

Leather tanning, finishing

31110—SINGAPORE — Garment leather; patent leather; bag, case and strap leather; belting leather, etc. Shroffs (Malaya) Sdn. Bhd. (importer, dist., agent), 255-A Tanjong Katong Rd., Singapore 15. WTD in prep.

Pottery, related products

32610 — JAMAICA — Vitreous enamel basic bathroom fixtures; basins, toilet bowls, bidets, shower bases, bathtubs. Abdulla C. Marzouca Ltd. Attn: Alvin Lyons (importer, agent, retailer), 157 Orange St., Kingston. WTD 6/70.

Steel mill products

33160 — PAKISTAN — Steel scrap. Requests quotations C. & F. Karachi. Franco Ferri & Co. (Pakistan) Ltd. (agent), 3 Hoshang Rd., P.O. Box 4446, Karachi. WTD 11/70.

Secondary smelting, refining of nonferrous metals

33413—SINGAPORE—Solder for welding of transistors, etc. S. Bielkelov, Man. Dir., Swedish Trading Co. Sdn. Bhd. (importer, dist., agent), Bank of China Bldg., Battery Rd., P.O. Box 863, Singapore. WTD in prep.

Cutlery, hand tools, general hardware

34211—SINGAPORE—Manicure set, other beauty salon equipment. Ng Eng What Co. Pvt. Ltd. (importer, dist., retailer), 14 New Bridge Rd., Singapore 1. WTD in prep.

Heating apparatus, plumbing fixtures

34336—SWITZERLAND—Novelty heating equipment, stationary and portable, of advanced design. RIWOSA AG (importer, dist.), Witikonerstrasse 80, 8032 Zurich. WTD in prep.

Fabricated metal products

34942—GERMANY—Volume flow control valves for use in chemical, petrochemical industries. Quotations c.i.f. European port preferred. CONTROLMATIC Gesellschaft fuer Industrie-Automation mbH. (importer, dist., mfr.), 11 Danziger Str., 6000 Nieder-Eschbach. WTD 11/70.

Engines, turbines

35111—PAKISTAN—Ten kw gasoline engine generating sets; MIL specifications; 6115-0995 trailer mounted generating sets PU-248/U.; 50 sets. Requests catalogs, quotations, C. & F. Karachi. Research & Development Asso. (agent), P.O. Box No. 30, D/66 KDA Scheme No. 1, Karachi-8. WTD in prep.

Construction, mining, materials handling machinery, equipment

35318—BRAZIL—Scrapers, graders, rollers, off-highway trucks, trailers, wagons (excluding parts). LAGOS S/A-Veiculos Nacionais (dist.), Av. Epitacio Pessoa 2664, Rio de Janeiro, ZC-20, GB. WTD 11/70.

35319 — PHILIPPINES — Hydraulic winches for fishing boats. Kayamanan Trading & Marketing Corp. (agent), North Bay Blvd., Navotas, Rizal. WTD in prep.

35370—ENGLAND — Materials handling equipment. Fairey Engineering Ltd. (mfr., exporter), P.O. Box 41, Crossley Rd., Heaton Chapel, Stockport, Cheshire, SK4 5BD. WTD in prep.

Metalworking tools

35410 — INDIA — Electrical discharge, electro chemical machine tools. Greaves Cotton & Co. Ltd., (agent), 1 Forbes St., P.B. 91, Bombay 1 (BR). WTD 12/69.

Special industry machinery

35521—GERMANY — Spinning frames; twisting frames; yarn preparing machines; knitting machines. Prices c.i.f. European ports. Heinrich u. H. Mueller (agent), Box 1425, 4407 Emsdetten. WTD 8/70.

35593 — SWEDEN — Industrial robots, capable of making 50 or more movements for use in plastics industry, picking out pieces from injection moulding machines, feeding other machines. Elof Hansson, Plastics Dept. (importer, agent), Forsta Langgatan 19, S-413 03 Goteborg. WTD 11/69.

General industry machinery

35690—ENGLAND — Wrapping, packaging machines. Rankin Packaging Ltd. (mfr.), White Batley Works, Bridge Close, Romford, Essex. WTD in prep.

Office, computing, accounting machines

35731—GERMANY—Electronic process computers. Quotations c.i.f. European port preferred. CONTROLMATIC Gesellschaft fuer Industrie Automation mbH. (importer, dist., mfr.), 11 Danziger Str., 6000 Nieder-Eschbach. WTD 11/70.

Electric transmission, distribution equipment

36113—NETHERLANDS — Newly-developed electrical, electronic instruments. TEKELEC-AIRTRONIC N.V. (dist., agent), 235 Kruislaan, Amsterdam. WTD in prep.

Electrical industrial apparatus

36210 — SWITZERLAND — High speed stepping motors for digital motions, for x/y positioning systems. Dumaco AG; Attn: Mr. Manta, Ing. (importer, dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 4/69.

36220—SWITZERLAND—Industrial control apparatus, units. Dumaco AG; Attn: Mr. Manta, Ing. (importer, dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 4/69.

Household appliances

36343—SWITZERLAND — Novelty heating appliances of advanced design, 220 V. RIWOSA AG (importer, dist.), Witikonerstrasse 80, 8032 Zurich. WTD in prep.

Radio, television receiving sets

36520 — SINGAPORE — Cassette tapes, pre-recorded cassette tapes, etc. Lalchand Hemandas Vaswani, Lalchand's (importer, dist., agent), Malaysia Arcade, Rm. 14, 75-A High St., Singapore 6. WTD in prep.

Communication equipment

36610—NIGERIA — Telephone, telegraph apparatus (telecoms., communications equipment). Sole dist. SENTRYCOM Alarms (Nigeria) Ltd. (importer, dist., agent), 156 Herbert Macaulay St., E.B., P.O. Box 94, Lagos. WTD 8/70.

36621—FRANCE—Radio frequency generators 0 to 220 mc/s; semiconductor testers. Urgent request for early 1971 delivery. Societe Electronique d'Etudes et d' Applications des Transitors (agent), 38 Rue Sedaine, Paris XI. WTD in preparation.

36623—ITALY—Burglar alarm systems; other alarm systems, industrial and domestic safety, protection devices. Agency, possibly dist. Geom. Roberto Mancuso (agent), Via Enrico Albanese 114, 90139 Palermo. WTD 11/70.

36623—NIGERIA — Intercommunication equipment (except telephone, telegraph), electric alarm, signal systems and devices (burglar alarms). Sole dist. SENTRY-COM Alarms (Nigeria) Ltd. (importer, dist., agent), 156 Herbert Macaulay St., E.B., P.O. Box 94, Lagos. WTD 8/70.

36625 — PHILIPPINES — Radar equipment for fishing boats. Kayamanan Trading & Marketing Corp. (agent), North Bay Blvd., Navotas, Rizal. WTD in prep.

Electronic components, accessories

36742—SINGAPORE—Transistors for radios, stereos, amplifiers. Lalchand Hemandas Vaswani, Lalchand's (importer, agent, retailer), Malaysia Arcade, Rm. 14, 75-A High St., Singapore 6. WTD in prep.

36790 — ENGLAND — Electronic safe working load indicator for mobile cranes. Lloyd's British Testing Co. Ltd. (dist., mfr.), Lloyd's Proving House, Cradley Rd., Netherton, Dudley, Worcestershire. WTD in prep.

36790 — SWITZERLAND — Electronic components, switches, contacts, relays. Dumaco AG; Attn: Mr. Manta, Ing. (importer, dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 4/69.

36795—NETHERLANDS — Newly-developed electronic components, instruments. TEKELEC-AIRTRONIC N.V. (dist., agent), 235 Kruislaan, Amsterdam. WTD in prep.

Ship building, repairing

37323—PHILIPPINES—Life rafts. Kayamanan Trading & Marketing Corp. (agent), North Bay Blvd., Navotas, Rizal. WTD in prep.

Engineering, laboratory, scientific, research instruments

38112—SWEDEN—Laboratory and scientific instruments such as electrophoresis densitometers, membrane filtering equipment, instruments for liquid chromatography, etc. Tekno Maskin Import AB (importer, agent), Box 438, S-124 04 Bandhagen 4. WTD 12/70.

38112—SINGAPORE—Laboratory, scientific instruments. T. E. Whittall, Gen. Mgr., Motion Smith & Son (Pte.) Ltd. (importer, dist., retailer), 57/58 John Little's Bldg., 2nd floor, Raffles Place, Singapore 1. WTD in prep.

Instruments for measuring, controlling, indicating physical characteristics

38210 — SWITZERLAND — Industrial process control, measuring instruments, parts. Dumaco AG; Attn: Mr. Manta, Ing. (importer, dist., mfr.), Elfenaustrasse 3, 2500 Bienne. WTD 4/69.

38213—GERMANY—Electronic or pneumatic industrial instruments for measurement, display, control of process variables for use primarily in chemicals, petro-chemical, food industries; analysis instruments for chemical industry. Quotations c.i.f. European port preferred. CONTROLMATIC Gessellschaft fuer Industrie Automation mbH. (importer, dist., mfr.), 11 Danziger Str., 6000 Nieder-Eschbach. WTD 11/70.

Optical instruments, lenses

38311 — SINGAPORE — Binoculars, telescopes, etc. Lalchand Hemandas Vaswani, Lalchand's (importer, dist., agent), Malaysia Arcade, Rm. 14, 75-A High St., Singapore 6. WTD in prep.

Toys, amusement, sporting goods

39493—ITALY—Swimming pools, portable, prefabricated, made of aluminum, plastic or other materials, swimming pools components. Agency, possibly dist. Geom. Roberto Mancuso (agent), Via Enrico Albanese 114, 90139 Palermo. WTD 11/70.

Costume jewelry, novelties, buttons, notions

39610—SINGAPORE—Imitation costume jewelry, accessories for men, women. Lalchand Hemandas Vaswani, Lalchand's (importer, agent, retailer), Malaysia Arcade, Rm. 14, 75-A High St., Singapore 6. WTD in prep.

Manufacturing industries

39999 — SINGAPORE — Mannikins for wig, dress display. NG Eng What Co. Pvt. Ltd. (importer, dist., retailer), 14 New Bridge Rd., Singapore 1. WTD in prep.

Other Foreign Official Tenders

ALGERIA—The Ministry of Tourism issued a tender for the supply of material and equipment for a new chain of motels (caravansaries) located in Touggourt, Ouargla, Timimoun, Beni-Abbes, Ain-Sefra and El-Golea. The bid consists of the following lots: Lot No. 1—Kitchen: cooking equipment; kitchen machinery; kitchen sinks and dishwashers; ventilating equipment; kitchen utensils, etc. Lot. No. 2—Refrigeration: walk-in refrigerators; cabinet refrigerators, etc. Lot No. 3—Laundry equipment. Lot No. 4—Restaurant equipment. Lot No. 5—Linen. Lot No. 6—Clothing and shoes. Lot No. 7—Office furniture and materials. Lot No. 8—General furniture. Lot No. 9—Lighting and electricity. Lot No. 10—Maintenance equipment. Lot. No. 11—Vehicles. Lot No. 12—Miscellaneous. Set of six blueprints relative to the motels and specifications for each lot can be purchased from the general contractor: A.E.T.A., Villa les Arcades, Diar-El-Mahcoul, Algiers. Set costs 705 Dinars (U.S. $1=4.94 Dinars); specifications for each lot cost 25 Dinars. Bids due Jan. 31 addressed in a double envelope to: Monsieur le President de la Commission, d'Ouvertures des Plis, Ministere du Tourisme, 42, Rue Khelifa Boukhalfa, Algiers. Copy of specifications in French for review is available at Dept. of Commerce, BDC-541, Rm. 1104, Washington, D.C. 20230 (202-967-4674).

ALGERIA—The Radiodiffusion Television Algeriene has issued Tender No. 145/E for the supply and installation of color TV equipment. Bid deadline is Jan. 26. Bid should offer color film chain equipment and synchronization equipment. Copies of tender announcement and specifications are available from the Direction Des Services Techniques 21, Boulevard Des Martyrs, Bureau 721, Algiers or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-643, Room 4209, U.S. Department of Commerce, Washington, D.C. 20230. ★ (Telephone: 202-967-4823).

ALGERIA—The Office National du Lait et des Produits Laitiers—National Bureau of Ministry of Agriculture and Agrarian Reform, (a state enterprise), No. 1 Place Carnot, Hussein-Dey, Algiers, has issued a tender for the supply of equipment for a new milk complex. This plant will process cheese and butter. Bid deadline Jan. 15. Specifications from the Office National du Lait et des Produits Laitiers, above address, for 100 DA (about $20).

ARGENTINA—The Argentine Highway Bureau invites bids for the supply of equipment and instruments for conducting an auto. traffic survey. Supply 16 portable transreceivers; three compiling equipment, marbelite type or similar; three loop testers; 200 traffic counters; eight electronic calculators, sharp compet 36-type or similar; 20 manual traffic counters with four accumulators; 80 manual traffic counters with 14 accumulators; two friction meters; one set photogrammetry equipment; two sets direct distance measuring instruments with linear range of 1,000 meters and two sets of 2,000 meters. Tender No. 5624; bid deadline Jan. 20. World Bank loan. Conditions and specifications available for U.S.$10 from Direccion Nacional de Vialidad, Div. Compras, Av. Maipu 3, Buenos Aires.

COSTA RICA—The Institute of Electricity (ICE) has called for bids on the Costa Rican portion of the switching system for the Central American Regional Telecommunications Network. Bid deadline is 10 a.m., Feb. 10. Copies of tender announcement and specifications for the Costa Rican portion are available only from the Instituto Costarricense De Electricidad, Barrio Aranjuez, San Jose, Costa Rica at a cost of U.S. $200 per set. Copies of the invitation to bid are available on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-643, Room 4209, U.S. Department of Commerce, Washington, D.C. 20230 ★(202-967-4823).

DAHOMEY—Offers for the study and construction of a palm oil plant at Hinvie are being sought. Documents in French are obtainable from the Director, SONADER, B. P. 12, Porto-Novo, Dahomey, for U.S.$37, or from IRHO, 12 Sq. Petarque, Paris 16. Deadline Dec. 31.

EL SALVADOR—The Telecommunications Administration Agency issued a tender for the supply and installation of a microwave system. Bid deadline 10 a.m. Feb. 10. Bid should offer microwave commutation/exchange system to link San Salvador with other capital cities of Central America. To participate in bidding, each bidder must present in each of the five Central American countries (El Salvador, Guatemala, Honduras, Nicaragua and Costa Rica) his bid for the complete installation of the microwave commutation/exchange system and should include the cost of providing the international communication equipment and the automatic billing system, as well as installation, personnel training and maintenance. Copies of tender announcement and specifications available from the Tesoreria Central, Administracion Nacional De Telecommunicaciones (Antel) Calle Ruben Dario Y 5A Avenida Sur, San Salvador for U.S. $200. Copies must be bought directly by bidder or his representative.

FRANCE—Bids are sought for development of the "Centre du Plateau Beaubourg," located in the old quarter of Les Halles, Paris, where a contemporary art center will be constructed. This project includes a museum of modern arts; museum of architecture and design; the National Center of Contemporary Arts; public library; music; audio-visual arts, and creative and industrial art center. Construction will start in 1973. An international jury will select the architectural company offering the most imaginative project. U.S. companies interested in bidding should request a project file at the Delegation pour la Realisation du Centre du plateau Beaubourg, 25, rue de la Bienfaisance, Paris 8e. Express interest by Feb. 26; bid deadline June 15. U.S. Embassy in Paris will forward the project brochures when available to the Dept. of Commerce, BDC-645, Washington, D.C. 20230 (202-967-5289).

GREECE—Piraeus Port Authority, Lykiardopoulou Bldg., Akti Miaouli & II Merarhias St., Piraeus, extended the deadline for one gantry crane to handle containers. It should have a hoisting capacity of 41 tons. Changed from Jan. 7 to Feb. 11. (See *Commerce Today*, Nov. 16, p. 58 and *Commerce Business Daily*, Nov. 5, p. 18.)

HONDURAS — The Empresa Nacional de Energia Electrica (ENEE), Tegucigalpa, an agency concerned with electric power development, is seeking five engineers to work in its generation and transmission extension projects. The positions available are for transmission, substation, control and communications, generation and hydraulic engineers. Contracts will be for three years; subject to extension; funded from World Bank loan. Selected applicants will be invited to Tegucigalpa for interview. Applications should be addressed to the above agency and must be received by ENEE on or before January 25, 1971.

INDIA—Deputy Chief Engineer, Posts & Telegraphs, issued Tender No. 162-19/70 TPL for supply and installation of microwave antennae. Bid deadline Jan. 27. Bid should offer 56 7–GHz antennae, 24 6–GHz antennae and six passive reflectors for 7–GHz. Copies of tender announcement and specifications available from India Supply Mission, 2536 Massachusetts Ave., NW., Washington, D.C. for $2.50 each, or on short-term loan to firms in U.S. from Communications-Electronics Div., BDC-643, Rm. 4209, Dept. of Commerce, Washington, D.C. 20230. ★(202-967-4823).

KUWAIT—The Central Tenders Committee has issued tender no. PTT/5-70/71 for the supply and installation of mobile radiotelephones systems. Bid deadline is Jan. 10. Copies of tender announcement and specifications are available only from the Central Tenders Committee, Sief Palace, Kuwait for U.S. $56 per set.

PAKISTAN—The Senior Executive (Planning, East Pakistan Industrial Corp.) EPIDC House, Motijheel, Dacca, has extended the deadline for the construction. erection, commissioning and supply of equipment for a petrochemical complex, from Jan. 14 to Mar. 15. (See *International Commerce*, Oct. 5, p. 46, and *Commerce Business Daily*, Sept. 29, p. 15.)

RWANDA — Electroconsult s.p.a., Via Chiabrera, 8, 20151 Milan, on behalf of the Rwandan Ministry of Public Works, seeks applications of tender on the construction of 80 kms. of macadamized road between Kigali and Gatuna. IDA financing. Electroconsult will send application forms upon receipt of a payment of 12,000 Italian lira (U.S.$19.05) to Account No. 897/01, ELC-Electroconsult, Banca Commerciale Italiana, Agence No. 33, Milan. Applications due Jan. 10. Correspondence is preferred in French. Participation open to civil engineering firms of World Bank countries, but firms with heavy equipment in or near Rwanda will have bidding advantage.

West Indies Firm Desires To Act As Shipping Agent

A West Indies firm, Industrial & Automotive services (Caribbean) Ltd., wishes to establish contact with a U.S. firm which would represent it in the U.S. and act as its purchasing, confirming, paying and shipping agent.

Contact: Hugh Laughland, Man. Dir., Eastern Main Rd., Laventille, P.O. Box 286, Port of Spain, Trinidad, W.I. WTD in prep.

Future Construction Abroad

AUSTRALIA—Three major projects are developing: **small ship facilities in Frances Bay; deep water berth at Fort Hill; bulk loading facilities** at East Arm. The Frances Bay project will consist of two fixed piers protected by a breakwater, which will provide berthing space. Land backing on to the piers will be reclaimed to provide sites for offices and port facilities. Dinah Beach Road will be upgraded and a new road from the present port area along Frances Bay will provide access via a causeway to the small ship facility. The second project, the new general cargo berth on the western side of the existing iron-ore wharf, is to be 600 ft. long, backed by 5½ acres of reclaimed land and linked with Kitchener Drive by a causeway, carrying a three lane road. A storage shed of 40,000 sq. ft. for container and general cargo will be located near the existing container shed. Another shed will be built on the wharf. The third project is the bulk port development at East Arm, providing a berth at Shell Island capable of handling vessels of up to 100,000 tons deadweight. A causeway will connect the island berth with Quarantine Island which will have a stockpile area for iron ore. The causeway will carry a conveyor system to take the ore to the deep water berth. A shiploader, capable of handling 2,000 tons per hour, and a new reclaimer unit with a capacity of 1,000 tons per hour are planned. The construction program provides for all new facilities at Port Darwin to be operational by early 1973.

BRAZIL—A new Program of Goals and Bases involving **capital investment in materials and equipment** of U.S.$2.3 million in the Transportation Sector (highways, ports and ocean and inland waterway transport, railroads, air transport) and Sector (long distance internal communications, international telecommunications, urban telephone systems, and modernization of the national postal-telegraph system) was announced. A copy of the Foreign Service report with details is available from the International Liaison & Trade Opportunities Staff, BDC-541, Dept. of Commerce, Washington, D.C. 20230.

CANADA—A C$430 million plan for a **major extension of the Montreal subway system** has been announced by the Executive Committee of the Montreal Urban Community (MUC), the supra-municipal body whose responsibilities include the administration of the public transportation system serving the various cities of the greater Montreal area. The ten-year, two-phase plan envisages the addition of 28.4 miles of new lines by 1981, with a possible seven miles more during a later third phase if warranted by regional developments. The Executive Committee hopes to get the required approval of the full MUC Council as well as assurances of financial assistance from the Government of Quebec Province in time to call for tenders by about May, with work starting as soon as possible after that.

CANADA—A $5 million **medical-dental and professional office building** has been planned for the northwest corner of West Broadway and Willow Sts. in Vancouver. Covering 110,500 sq ft, construction on the 22-story building is expected to commence in a few weeks. The concrete and precast structure at 805 Broadway Centre includes a restaurant, shops, bank, and similar facilities. The building is to be completed in 1971. The owner states that contracts for interior furnishing and equipment are open, particularly for air conditioning. Interested U.S. suppliers should contact Mr. Stanzyl, Frank Stanzyl Construction Co. Ltd., 6549 Fraser St., Vancouver, British Columbia.

CANADA — Brameda Resources Ltd. plans to invest about $100 million in a

coal mine venture near Chetwynd, British Columbia. Initial production, when the mine is completed sometime in 1972, will amount to 2 million tons of prime coking coal per year. Discussions have already commenced with some U.S. companies and mining equipment and supplies, but other U.S. suppliers may request information on the venture by writing to: Brameda Resources Ltd., 1177 W. Hastings St., Vancouver, British Columbia.

CANADA—The $7.8 million **senior-citizen apartment and community center** in the West End will include: 1) $2.1 million community center; 2) $5.7 million, 525-unit high rise for the elderly. The project architect indicated that the immediate task before moving into the actual design of the overall complex will be consolidation of opinions of West End residents to determine what facilities the center should include. Thompson, Berwick, Pratt & Partners, 1553 Robson St., Vancouver, will design the overall complex and the specifics of the senior citizen housing, while Gerald Hamilton & Associates, 740 Nicola, Vancouver, will serve as associate architects on the community center. Design work for the complex will commence this fall, following an analysis of all opinions regarding the community center; construction will begin in 1971.

GREECE—The Government set up a Special Service of Higher Technical Education at the Ministry of Education to **implement the Higher Technical Education Centers' program.** Special Service is negotiating a contract for preparation of a study including specification of equipment. Procurement will probably be handled by the Ministry of Commerce but at this stage inquiries should be directed to the above Special Service, 15 Metropoleos St., Athens, Attn: IXR, Demetrios Kassapis.

JAMAICA—Prospect Harbour has been selected as the site for **enlargement of harbor facilities** in the Cayman Islands. A harbor development study is being carried out as part of the British Technical Aid Program. Additional details on the project may be obtained from the Dept. of Commerce, International Liaison & Trade Opportunities Staff, BDC-541, Washington, D.C. 20230.

JAMAICA — Western Cold Storage, Newport West, Kingston 15, is increasing storage capacity by **constructing two refrigerated rooms** of 7,500 cubic feet each. Work on these projects is contracted. Western Cold Storage is also considering future construction of a large **aluminum sorting shed** with ordinary air conditioning facilities designed to keep temperatures in the 65-75 degree range. No contracts have yet been let for this construction. Harbour Cold Stores, 3rd St., Newport West, Kingston, is exploring construction of **a cooling sorting area.** Quotations have been invited from a pre-determined list of contractors. Zero Processing & Storage Ltd., 107 Marcus Garvey Dr., Kingston 11, is planning **expansion of refrigerated space** which now totals a quarter-million cubic feet. Plans are reportedly still in the early stages.

MOZAMBIQUE — Portugal is giving consideration to development of an **offshore mineral terminal** to be located somewhere between Lourenco Marques and the southern border of Mozambique. A preliminary feasibility study contract went to SOROS Corp., 575 Lexington Ave., New York, N.Y. Projections call for the terminal to handle about 8 million tons per year. Transport to the new terminal would be by rail from Goba on the Swaziland border. The Mozambique Ports & Railways Department has decided that its construction would present no difficulties.

PERU—The Managing Director of Petroleos del Peru has announced plans to invest approx. $200 million during 1971-1972 in **five petrochemical plants and one fertilizer plant.** A contract has been initiated for the fertilizer plant, however, the petrochemical plant projects are still in the planning stages. Products of the petrochemical plant are to be carbon black, fine oils (oleofinas), acetone, isopropenes and BTX. Write: Colonel Carlos Bobbio Centurion, General Manager, Petroleos del Peru (Petroperu), Av. Central 717, San Isidro, Lima.

SINGAPORE—Telecommunications Department of Singapore will be converted into an autonomous statutory organization by April 1972. The Government will embark on the following four developmental projects: 1) an **international automatic telex exchange** with an initial capacity of 150 channels is planned for completion in 1972. 2) the **national automatic telex exchange** will double its capacity from 600 to 1200 connections. It is planned that this exchange will be operational by December 1971. 3) plans for a **second microwave link with West Malaysia,** increasing the existing capacity from 600 channels to 2400. 4) the **development of a multi-million dollar telecoms training center.** It is understood that no decision has been made on the supply of equipment or engineering and other services related to these projects.

UAR (EGYPT)—A French company will conduct studies and research for the implementation of an **underground electric subway project** in Cairo. The contract includes selecting the routes and stations of the underground lines, designing traffic signs and training technicians to operate the system. In addition to studying the subway project, 700 French experts will participate in the development of a plan for regulating Greater Cairo Transport including buses, trams and trolley transportation. The studies will require 30 months after which the project will be put up for international tender.

New Trade Lists

The Bureau of International Commerce has published the following trade lists. Copies may be obtained for either country by firms domiciled in the United States from BIC-924, Department of Commerce, Washington, D.C. 20230, and from Department of Commerce Field Offices. The price is $1.00 per list for each country.

The following lists have been published to provide complete coverage for Sweden. Trade lists may be ordered for Sweden by the titles given below or by the five digit identification number. All are dated August 1970.

Sweden

No. *Title*

01000—Farm, forestry, fishery products; mining companies

20000—Food, kindred products; tobacco, tobacco products

22000—Textile industry

23000—Apparel, accessories; miscellaneous fabricated textile products

24000—Lumber, wood products; furniture, fixtures

26000—Pulp, paper, paperboard mill products; converted paper, paperboard products; building paper, boards

28000—Chemicals, plastics, related products

29000—Petroleum, petroleum products

30000—Rubber, rubber products; leather, leather products

32000—Stone, clay, glass products

33000—Primary metals, metal products, ferrous, nonferrous

34100—Metal cans; cutlery, hand tools, general hardware; heating apparatus (except electric), plumbing fixtures

34400—Fabricated structural metal products; industrial fasteners; metal stampings; miscellaneous fabricated metal products

35100—Engines, turbines

35200—Farm machinery, equipment; construction, mining, materials handling machinery, equipment

35400—Machine tools; special dies, tools, jigs, fixtures, industrial molds; machine tool accessories; other metalworking machinery

35500—Food products machinery; miscellaneous special industrial machinery, nonelectrical

35520—Textile industry machinery; woodworking, paper, printing industries machinery

35600—General industrial machinery, equipment, nonelectrical

35700—Office, computing, accounting machines; service industry machinery, miscellaneous nonelectrical machinery

36100—Electrical test, distributing equipment; electrical industrial apparatus (includes motors, generators, industrial controls, welding equipment, carbon, graphite products, capacitors, rectifying apparatus, etc.)

36300—Household appliances; electronic equipment for home entertainment; phonograph records, tapes

36400—Electric lighting, wiring equipment; miscellaneous electrical equipment, supplies

36600—Commercial, industrial, military communication equipment

36700—Electronic components, accessories

37000—Transportation equipment, parts, accessories (includes auto repair shops)

38000—Professional, scientific instruments, controlling devices; photographic equipment, supplies; watches, clocks; jewelry, silverware, plated ware

39000—Musical instruments; toys, amusements, sporting, athletic goods; office, artists' materials; costume jewelry; novelties, notions; miscellaneous manufactured products

International Business Reports

Directory of Directors 1970. **Published by The Financial Post, Toronto.**

The 24th edition of this directory lists some 13,000 Canadian directors and company officials, and shows their positions and directorships. In a separate listing, the boards of directors and executive officers of 2,400 Canadian companies are given. Listings include private as well as public companies.

Write: The Financial Post, 481 University Ave., Toronto 101, Canada.

The Senegalese Market, Second Edition. **Marches Tropicaux et Mediterraneens, No. 1283, June 13, 1970 (Special Issue in English), Paris. 100 pp. 85 cents.**

Following upon the first survey of the economy of Senegal in 1964, this updated special issue of this French weekly magazine goes into considerable detail on the market for building and industrial raw materials, capital equipment and foodstuffs and other consumer goods. This publication might be of value to the exporter or investor interested in West Africa.

Write: Marches Tropicaux, 490, boulevard Haussman, Paris (8^e), France.

Advantages of Operating in the City-State and Port of Hamburg. **By Walter H. Diamond. Published by the City of Hamburg and Matthew Bender & Co., New York. 24 pp. Free.**

The author points out that more than 290 U.S. firms are already operating in Hamburg, and cites the advantages which he says make Hamburg different from any other port in the world. It is the world's oldest and largest free port, a leader in containerization, and has committed more than $300 million to port improvement over a ten-year period.

Among the other advantages of Hamburg covered in the study are the availability of incentive grants and loans, low corporate taxes on distributed profits, income tax conventions, modern building facilities, the export boom's link with the Port, and the extensive preparations being made for future container traffic. **Write:** The City of Hamburg, Empire State Building, Suite 8201, 350 Fifth Ave., New York, N.Y. 10001.

The German Stock Market—Its Operations, Problems, and Prospects. **By James C. Baker, Praeger Special Studies. 228 pp. $15.**

This book provides coverage, in English, of the securities markets in the Federal Republic of Germany and West Berlin. It provides information on the organization of the German market, a subject of growing interest to those U.S. firms considering the raising of capital abroad. The study may also prove useful as a guide to U.S. multinational firms doing business in Germany, to American brokerage firms, and to actual or potential investors in that country.

Write: Praeger Publishers, III Fourth Ave., New York, N.Y. 10003.

The World Today Series, 1970. **Stryker-Post Publications, Inc. About 100 pp. each. $1.75 each.**

The five annually-revised texts in this series cover Africa, Latin America, Middle East and South Asia, Far East and Southwest Pacific, and the Soviet Union and Eastern Europe. The texts present overall historical backgrounds of the areas, and then a summary of the history, geography, government and politics, culture and economy of each nation. Maps of each country are included.

Write: Stryker-Post Publications, Inc., 888 17th St. NW., Washington, D.C. 20006.

Algeria: Land of Welcome. **Government of Algeria. 9 pp. Free.**

This English-language tourist guide contains information on Algerian entry requirements and customs formalities. It also provides a wide range of valuable data on topics ranging from hotels to car rentals to recommended routes for crossing the Sahara.

Write: Algerian Interests Section, Embassy of Guinea, 2118 Kalorama Rd. NW., Washington, D.C. 20008.

Calendar For World Traders

Jan. 5—New York—FCIA roundtable conference on international finance, credit, collection and exchange problems, Summit Hotel, noon.

Jan. 6 — Philadelphia — In-office workshop on Organizing for Export. Commerce Field Office, 10 a.m.

Jan. 12—Kansas City—Meeting for exporters on FCIA, Top of the Tower Restaurant, Commerce Tower.

Jan. 13—New York—FCIB Publishers Export Credit Group dinner meeting, Advertising Club, 4 p.m.

Jan. 13 — Philadelphia — In-office workshop on Export Sales Correspondence. Commerce Field Office, 10 a.m.

Jan. 14—Kansas City—Export Documentation Seminar, 1840 Federal Bldg., 2 p.m.

Jan. 21 — Boston — International Center of New England's annual world business perspective luncheon meeting, Sheraton-Plaza.

Jan. 21—New York—FCIB Drug, Chemical & Food Export Club luncheon meeting, Advertising Club, 12:15.

Jan. 28—Kansas City—Export Documentation Seminar, 1840 Federal Bldg., 2 p.m.

New Publications

DOMESTIC AND INTERNATIONAL BUSINESS

BUREAU OF DOMESTIC COMMERCE

BDC changes nomenclature of regulations and orders now in effect. BD 70-52.

Marketing Information Guide. A monthly annotated bibliography. December. Annual subscription $4.50 ($1.25 additional for foreign mailing). Single copy 40¢.

Copper Quarterly industry report. October. Annual subscription $1 (25¢ extra for foreign mailing). Single copy 25¢.

Printing and Publishing. Quarterly industry report. October. Annual subscription $1 (25¢ additional for foreign mailing). Single copy 25¢.

Salad Dressing, Mayonnaise and Related Products: 1969. November, 20pp. 25¢. Based on the 42nd annual survey of the U.S. salad dressing, mayonnaise, and related products industry, the survey covers operations of all known manufacturers.

BUREAU OF INTERNATIONAL COMMERCE

Foreign Economic Trends

Annual subscription $15 ($6 additional for foreign mailing). Single copy 10¢. Most recent reports are:
Panama (ET 70-115). 8pp; **Turkey** (ET 70-116). 12 pp; **El Salvador** (ET 70-117). 12pp; **Honduras** (ET 70-118). 12pp; **Peru** (ET 70-119). 16pp; **Iceland** (ET 70-121). 12pp; **Italy** (ET 70-122). 12pp; **Saudi Arabia** (ET 70-123). 12 pp; **Angola** (ET 70-124). 12pp; **Mexico** (ET 70-125). 12pp; **Nigeria** (ET 70-126). 12pp; **Costa Rica** (ET 70-127). 7pp; **Netherlands** (ET 70-128). 12pp; **India** (ET 70-129). 12pp; **Uganda** (ET 70-130). 12pp; **Metropolitan Portugal** (ET 70-131). 12pp; **Switzerland** (ET 70-132). 8pp; **Malaysia** (ET 70-133). 16pp.

International Marketing Information Service

London show offers opportunity to U.S. makers of high performance materials (IMIS 70-59). November. 8pp. 10¢.

Exhibitor's Export Market Guide

Automation controls & related devices for production market strong in Japan (IMIS 70-60). November. 8pp. 10¢.

Pollution control equipment demand in Europe seen increasing sharply (IMIS 70-61). November. 12pp. 10¢.

Overseas Business Reports

Annual subscription $16 ($5 additional for foreign mailing). Single copy 15¢.

Basic data on the economy of the Central American Common Market (OBR 70-43). September. 56pp.

Selling in India: dealing with the private sector (OBR 70-58). October. 16pp.

Foreign trade regulations of Tunisia (OBR 70-67). November. 12pp.

Market factors in Spain (OBR 70-63). November. 16pp.

Trade Lists

Listings of foreign business firms, classified under approximately 75 commodity and service groups, for use in locating sales outlets, sources of supply, direct market survey, and similar data: The following is newly compiled; others are available. $1 each.

State Trading Organizations—Bulgaria, October.

ECONOMIC AFFAIRS

OFFICE OF BUSINESS ECONOMICS

Survey of current business. November. Annual subscription $9 ($3.75 additional for foreign mailing). Single copy $1.

BUREAU OF THE CENSUS

Construction and Housing

Authorized construction — Washington, D.C. area: October. (C41-70-10). Nov. Annual subscription $1. Single copy 10¢.

Housing starts: October. (C20-70-10). November. Annual subscription $1.50. Single copy 15¢.

1967 Census of Construction Industries

Area Statistics—Final Reports. Each is dated November, consists of 24 pages, and is priced at 35 cents: **California** (CC67-A-6); **Idaho** (CC67-A-14); **Indiana** (CC67-A-16).

Distribution and Services

Weekly retail sales. Estimated weekly retail sales of retail stores in the United States for the week ending Nov. 28 (CB 70-376). Dec. 3. 2pp. 10¢.

Weekly retail sales. Estimated weekly retail sales of retail stores in the United States for the week ending Dec. 5 (CB 70-380). Dec. 10. 2 pp. 10¢.

Monthly wholesale trade: October (CB 70-384). Dec. 8. 2pp. Annual sub. $2. Single copy 20¢

Monthly retail trade: October (CB 70-385). Dec. 8. 2pp. Annual sub. $1. Single copy 10¢.

Canned food report: estimates of distributors and canners stocks—Nov. 1, 1970 (CB 70-379). Dec. 10. 2pp.

1967 Census of Business

Selected Services—Subject Reports:
Law firms (BC67-SS5). 52pp. 60¢.

Retail Trade—Subject Reports:
Sales size (BC67-RS2). 290 pp. $2.25.
Employment size (BC67-RS3). 246pp. $2.

Retail Trade—Major Retail Center:
United States Summary (BC67-MRC-1). 76pp. 65¢.

Wholesale Trade—Subject Reports:

Credit sales, receivables, and bad-debt losses (MC67-WS3). November. 136pp. $1. A United States summary on the size of wholesale establishments, receivables and bad debt losses, sales by class of customer, and similar data.

Business Conditions Digest. November. Data through October. Series ES1 No. 70-11. Annual subscription including supplements $16 ($4 additional for foreign mailing). Single issue $1.50. This monthly report brings together many of the economic time series found most useful by business analysts and forecasters.

Defense indicators. November. Series ES4, No. 70-11. Annual subscription $4.50 ($1.25 additional for foreign mailing). Single copy 45¢. The purpose of this monthly report is to bring together the principal time series on defense activity which influence short-term changes in the national economy.

Small-area data notes. October. 8pp. 10¢. Contents include: 1970 population data for wards; highlights of the 1970 Census; user conference on the 1969 Census of Agriculture.

Foreign Trade

U.S. imports—general and consumption, schedule A commodity and country: September (FT 135). December. Annual subscription $21 ($5.25 additional for foreign mailing). Single copy $1.75.

U.S. exports—schedule B commodity and country: September (FT 410). December. Annual subscription $33 ($8.25 additional for foreign mailing). Single issue $2.75.

U.S. trade with Puerto Rico and U.S. possessions: August (FT 800). December. Annual subscription $2.50 (75¢ extra for foreign mailing). Single copy 20¢.

Bunker oil and coal laden in the United States on vessels engaged in foreign trade: October (FT 810). Dec. 9. Annual subscription $1. Single copy 10¢.

U.S. airborne foreign trade. Customs district by continent: September (FT 986). Dec. 9. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

Highlights of U.S. export and import trade: October (FT 990). December. Annual subscription $5 ($1.25 additional for foreign mailing). Single copy 45¢.

Export and import merchandise trade: October (FT 900). Nov. 30. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

Trade area, coastal district, customs district, port of lading or unlading and type of service: August (FT 985). Nov. 20. Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

U.S. gold movements: October (FT 2402). Dec. 1. Annual subscription $1. Single copy 10¢.

Foreign commerce and navigation of the United States: 1965—Volumes I, II, and III. June. These bound volumes contain a statistical history of United States import and export activities and official statistical data on the foreign commerce of the United States through 1965.

Volume I—Standard international trade classification (SITC) commodity by country. 628pp. $7.

Volume II—Area and country by standard international trade classifications (SITC). 844pp. $8.25.

Volume III—Schedule A and schedule B commodity by country. 960pp. $9.

Industry

1967 Census of Manufactures

Summary Series

Manufacturers' inventories (MC67(1)-4). November. 24pp. 30¢.

Industry Series—Primary Metal Industries

Blast furnaces, steel works, and rolling and finishing mills (MC67(2)-33A). Nov. 54pp. 60¢.

Nonferrous metal mill and foundry products (MC67(2)-32D). Nov. 68pp. 60¢.

Metalworking machinery and equipment (MC67(2)-35C). Nov. 54pp. 55¢.

Current Industrial Reports

Communication equipment: 1969 (Series: BDSAF-363B(69)-1). Nov. 12. 2pp. 25¢.

Tire cord and tire cord fabrics: summary for 1969 (Series: MQ-22T.4(69)-5). Nov. 10. $1 per year. Single copy 25¢.

Sulfuric acid: 1969 (Series: M28A(69)-13 Supplement 1). Dec. 2. $1.50 per year single copy 15¢.

Change Sheet on Fats and oils—seasonal adjustment supplement 1959 to 1969 (Series: M20J Supplement), released Oct. 15. Correction dated Nov. 24.

Population

Estimates of the population of the United States to Oct. 1 (Series P-25, No. 452). 2pp. 5¢.

Educational attainment—March 1970 (Series P-20, No. 207). 36pp. 35¢.

Current population reports issued in Series P-20, P-23, P-25, P-26, P-27, P-28 (summaries only), P-60, and P-65 are sold as a single consolidated subscription at $14 per year, $3.50 additional for foreign mailing.

1970 Census of Population

Final Population Counts—Advance Reports:

Delaware (PC(V1)-9). Nov. 8pp 25¢
Nevada (PC(V1)-30). Nov. 4pp. 25¢.

General Population Characteristics—Advance Reports:

Hawaii (PC(V2)-13). Nov. 4pp. 30¢.
New Hampshire (PC(V2)-31). Nov. 6pp.
Nevada (PC(V2)-30). Nov. 8pp. 30¢
S. Carolina (PC(V2)-42). Nov. 12pp. 30¢.
South Dakota (PC(V2)-43). Nov. 12pp.

ECONOMIC DEVELOPMENT

Economic development. December. Annual subscription $1.50 (50¢ additional for foreign mailing). Single copy 15¢.

SCIENCE AND TECHNOLOGY

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Earthquake information bulletin. Nov.-Dec. Annual subscription $1.50 (50¢ extra for foreign mailing). Single copy 30¢.

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Ionospheric electron concentration measurements at the magnetic equator, 1964-66 (ESSA TR ERL 186-AL 4). September. 50pp. 50¢. This report provides contour plots of ionospheric electron concentration data obtained at the Jicamarca Radar Observatory, Lima, Peru.

The kinematic behavior of spherical particles in an accelerating environment (NOAA TR ERL 187-WPL 13). October. 34pp. 35¢. This paper investigates and evaluates the response of a particle to accelerating air conditions by solving the three-dimensional equation governing the kinematic behavior of a single target for the special case of spherical particles.

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The ion storage technique for application in frequency standards (Tech. Note 388). 23pp. 35¢. The basic technique of trapping ions in a quadrupole configuration driven by a radio frequency field is described.

Organic chemistry section: summary of activities July 1969 to June 1970 (Tech. Note 547). November. 134pp. $1.25.

A systems programmer's guide for implementing OMNITAB II (Tech Note 550). November. 43pp. 50¢.

NATIONAL TECHNICAL INFORMATION SERVICE

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 95¢), unless otherwise specified.

Evaluation of an experimental fish reduction process applicable to small fisheries (PB-195 052). Bureau of Commercial Fisheries, Ann Arbor, Mich., for the Economic Development Admin. July. 165pp. Discusses a process to convert raw fish into a cooked, pressed product (presscake) and its use as a mink food.

The economics of fish protein concentrate (PB-195 226). MIT, Cambridge, Mass., for the National Council on Marine Resources and Engineering Development, Executive Office of the President. Sept. 202pp. Examines the economic feasibility of fish protein concentrate as a nutritional supplement in the diet of a developing country and as a competitive food additive in the United States.

The decision maker's guide to applied planning, organization, administration, research, evaluation, information processing and analysis techniques (PB-195 442). University of Florida, Gainesville, for HEW. Feb. 189pp. Contains a 5,000-item subject index and abstracts covering over 1,200 articles selected from journals.

Noise exposure forecast contours for 1967, 1970 and 1975 operations at selected airports (AD-712 646). M. A. Simpson, Bolt, Beranek and Newman, Inc., Van Nuys, Salif., for FAA. Sept. 274pp. Depicts Noise Exposure Forecast (NEF) contours of 28 airports. The NEF contours define compatibility with respect to aircraft noise and can be used as a guide to land-use-planning and zoning and airport development.

Technological forecasting (BNWL-1466). Battelle Memorial Institute, Richland, Wash., for AEC. June. 68pp. Reviews techniques currently being used for technological forecasting and advanced planning. A procedure based mostly on use of relevance trees derived from use of the morphological approach to invention and discovery is discussed.

Economic aspects of solid waste disposal at sea (PB-195 225). MIT, Cambridge, Mass., for the National Council on Marine Resources and Engineering Development, Executive Office of the President. Sept. 134pp. Compares market costs of various disposal alternatives. Points out potential ecological problems in each system.

Economics of air and water pollution (PB-195 424). Virginia Polytechnic Institute, Blacksburg, for HEW. Oct. 1969. 256pp. Proceedings of a seminar held at VPI.

Conversion of municipal and industrial refuse into useful materials by pyrolysis (PB-194 946). Bureau of Mines, Washington, D.C. Aug. 18pp.

Urban economics and planning (AD-714 500). Defense Documentation Center, Alexandria, Va. Oct. 292pp. Contains references (with abstracts) to reports on urban area problems, regional planning and development, sociometrics, urban renewal, transportation, traffic, noise, and communications.

Multiple assessment procedures in identifying and developing managerial talent (AD-713 974). Univ. of Minnesota, Minneapolis, for the Dept. of the Navy. Aug. 44pp. Gives a conceptual and behavioral analysis of managerial effectiveness, with implications for its measurement and prediction, and describes major features of multiple assessment procedures.

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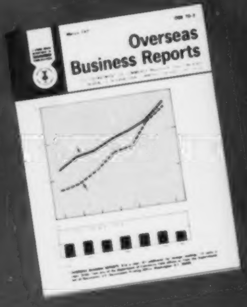

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